THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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RESUSCITATION OF WORN OUT LANDS.

Under the above heading the *American Artisan*, published in the city of New York, has the following remarks :

"'To repair damage already done to the soil, (of the United States,) will cost over one thousand millions of dollars.'

"Such is the conclusion of the Patent Office Report on Agriculture, on the subject of Chapter II, 'What the country has lost by impoverishing its soils.' This impoverishing is effected by the unwise mode of culture that takes off the soil all it can and puts nothing on. That there is a vast amount of such culture, statistics as well as observation abundantly show ; and the waste of labor and loss of profit by such culture is immense, no doubt fully equal to what this Report states. But its conclusion that it will require millions to restore these lands, is fallacious. The Report itself refutes its own conclusion, when it states a well known fact in proof of its position, that 'this deterioration is not unavoidable, for thousands of skillful farmers have taken fields poor in point of natural productiveness, and instead of diminishing their fertility, they have added ten cents on an acre to their annual income, over and above all expenses,'—yes, and often much more. And there is not an acre of these worn out lands that can not be resuscitated by such skillful farmers, without cost and with actual profit. The startling, unfounded position which the Report put forth, that it 'will cost on an average $12.50 an acre to renovate the partially exhausted lands of this State,' is not sustained by a single proof. There is quite a penchant in the Commissioner to make startling statements. He says, 'a million tons of human food pass down the Mississippi, where one ton of the elements of such food ascend,' just as if, for the production of this food, such a return of the elements of it was necessary. There is no truth in either of the theories. The elements are in the air, water, and earth, and the process of resuscitation can be carried on not only without loss but with profit. The cost of the manure, which, as that of leaven to the bread, will be more than returned in the crop, and the land more and more enriched each year by a right cultivation, which is ever a profitable one. The productiveness will be increased or renewed each year, much on the principle that leaven produces or multiplies itself when the appropriate materials are in contact with it. And as to the vegetative power of the earth, let there be due proportions of air, moisture, and warmth on any land, be it even nothing but sand, it will be manifested. But when aided by manure, it will be with far greater rapidity and always with profit without loss, if skillfully done ; and the outlay is no actual cost in the sense of this Report, when there is a profitable return over all expense of cultivation.

"The great importance of this subject to the country, is fully borne out by the statistics it gives. The yearly diminishing of production from the acre, till it becomes so little as to cause the exhausted land to be abandoned, is a wide spread process, going on over the whole country, and well may Government resort to measures to arrest it. But alarming statements of thousands of millions of cost to do it, will not promote it, but only aid to continue it. What is wanted, is the full and enforced statement, with its proof over the whole country, that the deterioration is not necessary — that it is solely the result of wrong culture — that the abandonment of an acre is an acre of condemnation of the farmer who does it — that in fact there is within the power of every farmer the means of resuscitating every acre at a cost less than it will require to subdue new land. This should be done ; and may the census now to be taken be used to effect it, and every agricultural paper, report, or society in the land, give its influence to impress on the public mind the truth that there is no necessity for this deterioration — that it is the sole effect of wrong cultivation — that the right will not only prevent it, but is far the most profitable — that the single principle of leaving half the annual vegetation on the land will enrich it, and this is all the change required. The forest is enriched from its yearly fall of leaves and dead limbs. The careful use of the grape leaves has been found ample to keep the grapery productive."

The writer of the above may know what is the "right cultivation" to prevent the "deterioration" of cultivated land ; if so, his light is most effectually hid under a bushel. No one not a fancy writer on agriculture would say that "the productiveness will be increased or renewed each year, much on the principle that leaven produces, or multiplies itself, when the appropriate materials are in contact with it." But, most sage critic, suppose "the appropriate materials" are lacking in the soil or in the "kneading-trough ;" what then ? Will your "leaven" make wheat or bread without "the appropriate materials ?" Certainly not.

When we stated that there were 8,000,000 acres of land in the State of New York so much exhausted

that $12.50 an acre would no more than renovate them, calling for an outlay of $100,000,000, criticism was both expected and desired. The truth can only be elicited, and the evil corrected, by public discussion. To provoke this was the deliberate aim of the "startling statements" erroneously ascribed to the Commissioner of Patents. They were made by one who was born and reared on a farm in the State of New York, and who has devoted most of his life to the study of this and kindred topics. That partially exhausted soils may be improved with a profit, is a point for which we have long contended; but in New York the profit will be diminished from $10 to $15 an acre, before the land can be fully renovated. If so, the injury done to impoverished fields, and damage to their owners and the State, is an average of $12.50 an acre. There are 12,000,000 acres under cultivation in New York, and from our childhood up we have seen farmers extract potash and bone-earth from this soil, and send both to distant markets, never to return. Will any man of common intelligence say that this vast area of impoverished soil contains as much of the elements of *bones*, and as much *potash* and other alkalies, now, as it did seventy-five years ago? One-half of the earthy matter removed in a crop of potatoes, is potash; and one-third of that taken out of a field in the seeds of wheat, is the same alkali. Whether a farmer buys wood ashes and bones at their market price, or labors for years to draw them from his sub-soil, in either case it will cost him from $10 to $15 an acre to supply his surface soil with as much as God gave it before man began to till it, and *waste* its elements of food and clothing. Man has not the power to curse the earth with irredeemable sterility. But to say that to impoverish it does not involve an injury to the community, and the necessity of a loss of labor to renovate it, is simply to assert what every man of sense knows to be untrue. No hocus-pocus, "leaven in bread," will add lime, soda, potash, phosphorus, magnesia, chlorine, sulphur, soluble silica, or rich mold, to a worn out cotton, corn, or wheat field. "The vegetative power of the earth, with due proportions of air, moisture, and warmth, on any land, be it nothing but sand," is a very pleasant *dream*, but nothing more substantial. No amount of pure sand, air, warmth, and moisture, will form the bones in a man's little finger, nor the brain in his cranium. His daily bread and meat must contain other ingredients extracted from the earth.

To increase its natural productiveness is entirely practicable; but it will cost money or labor to achieve this desirable result. Nor can the end ever be attained by falsely asserting that "a million tons of human food" may be annually taken from as small an area as will produce it, without restitution, and not deteriorate the soil. There are scores of writers on agriculture who teach this false *theory*, and call it *science*. How much an acre of land can spare of grain, cotton, or other crops, every year, without detriment, depends mostly on its chemical and geological character, but partly on its mechanical texture. Not before farmers are willing to foster the study of agriculture as a learned and useful profession, will they ever understand the true capacity of the soil to feed and clothe the human family. It is not far from the precise truth to say that they waste as much hard work, needlessly and heedlessly, every year, as all the mechanics, merchants, doctors, lawyers, and others, perform. There are in the State of New York alone, 500,000 tillers of the soil, who in the main work very hard to make large crops out of small materials; acting on the principle that a little yeast should give an ovenful of bread, without flour or meal! The nightsoil annually wasted in the State of New York, would make thirty million bushels of wheat, if saved, properly deodorized, and drilled in with the seed. This fertilizer is the bone and muscle of the land, drawn from its surface and thrown away, to compel the next generation to give more honest sweat for their food and raiment, or emigrate to the virgin soils somewhere this side of sun-down.

PATENT OFFICE REPORT.—Part II.

AGRICULTURAL METEOROLOGY.

There are few sciences the study of which is more useful to the farmer than that of Meteorology. A soil may contain all the atoms required to form a luxuriant crop, yet, if the temperature of the ground, or of the air above it, be too low, vegetation makes no progress. Again, the earth and atmosphere may have a due degree of warmth and light, as well as abound in all the food of plants in an available form, except *water*, and the absence of this element will be fatal to the hopes of the husbandman.

Atmospheric air, light, heat, electricity, rain, dew, snow, and frost, exert a controlling influence over the growth of all cultivated plants. A knowledge of the natural laws by which these generally invisible and imponderable bodies are governed, so far as researches have revealed them, is alike valuable and interesting. The atmosphere and the numerous phenomena of which it is the theatre, should command more attention in this country than they hitherto have received, if we intend to keep pace with the progress of physical science in Europe. To encourage the study of meteorology in its application to agriculture, is the object of this chapter.

The Atmosphere is mainly composed of two distinct gases, which are invisible but not imponderable bodies, and every where surround the planet, like an ocean. It has a mean depth of some forty-five miles. The gases which form the air are called *nitrogen* and *oxygen*. According to the accurate analysis of dry, pure, air, made by MM. Dumas and Boussingault, 100 parts consist of 20.8 oxygen and 79.2 nitrogen. These chemists found from 2 to 5 parts of carbonic acid in 10,000 of atmospheric air. Dr. Fresenius has ascertained that the proportion of ammonia in the atmosphere is as 1 to 2,000,000, varying to 1 to 3,000,000. Undoubtedly there are many other volatile and gaseous bodies in the atmosphere, in a state so extremely diluted and diffused as to escape all chemical tests. Sir Robert Kane found that sulphuretted hydrogen will pass through a thin piece of India rubber into the atmosphere, against a pressure equal to fifty times the weight of common air. Gaseous compounds of phosphorus, chlorine, and sulphur, are constantly discharged from decaying animal and vegetable substances into the atmosphere. These gases fall to the earth again in rain-water. It is one of the laws peculiar to all gases, that the presence of one in any given space does not in the least prevent several others from occupying the vacancies left between atoms of gas that seem to repel each other with singular aversion. The facility with which the atmosphere takes up vapor when water evaporates, is familiar to all.

This capacity to hold immense quantities of water imbibed from the ocean, lakes, rivers, the foliage of trees, and moist earth, in a volatile condition, to be distributed over broad continents, is a wonderful provision of nature. But the filling of the air with water, like a wet sponge, is less remarkable than the contrivance for *squeezing the sponge*, so to speak, and causing the diffused moisture to fall in gentle rains, snows, and dews. The *drying* of the atmosphere, after it is saturated with water, is a phenomenon without which it would never rain; nor could there be any springs, rivers, land plants, or animals on the globe. This precipitation of water is effected by a change of temperature, which change is the result of the revolution of the earth on its axis, and of solar heat. Day and night, spring, summer, autumn, and winter, with their ever-varying temperature, varying winds, and clouds, and constantly changing humidity, are all results of fixed laws, which invite the research of every reasoning mind.

Solar Heat.—According to Professor Forbes, the rays of heat coming from the sun and passing through the atmosphere in the shortest line, at the latitude of Paris, lose 25 per cent. of their calorific power by the time they reach the earth. Rays that strike the atmosphere at an angle of only 25°, part with half their intensity, or heat, by the time they touch the ground. The molecules of air absorb and radiate heat into space, the same as other ponderable bodies. Hence, no matter how clear the atmosphere, neither the rising nor the setting sun imparts so much light or heat to those parts of the earth so affected, as they receive when the sun is at the meridian. The effect of solar rays on the earth is still further diminished morning and evening, by the fact that fewer fall on any given area, because they impinge upon its surface obliquely. One can look at the setting sun with impunity, not because it emits less heat or light at that time, but because the rays are mostly absorbed and radiated in passing through many miles of atmosphere before they reach the eye of the observer.

The facility with which solar heat penetrates and warms the soil to the depth of six, twelve, eighteen, and twenty-four inches, and the radiation of heat from the earth, the leaves of plants, and all other substances, deserve particular notice.

A distinction must be made between the radiation of heat from the surface of any body, and the transmission of it through any substance, as iron, wood, water, mold, or soil. All these hold different relations to this peculiar element. It is not intended to take more than a popular view of this subject. At the time of seeding in spring, a single day is sufficient to warm to the depth of four inches, a mellow soil recently plowed. Two days of sun will warm the ground six inches, and six days twelve inches. The fall of warm rain on a well-drained, mellow soil, greatly hastens the heating of the earth. On the contrary, the fall of a cold rain, or much cold water in the ground, greatly retards the rise of temperature in tilled land. Heat and water should be studied together, if one would obtain a clear idea of their joint influence on vegetation. When water evaporates, it expands to 1,696 times its former volume, and renders latent, or insensible, a considerable amount of active heat. Hence, a wet piece of ground, from the surface of which a good deal of water evaporates, is always cooled by the constant loss of sensible heat which rises in vapor and departs far into the atmosphere.

The warmer the atmosphere, the greater is its capacity to hold water in the condition of a diffused, invisible vapor. The lower strata of air are heated much more by caloric radiated from the earth than by the absorption of heat from the sun in its passage to the planet. Air thus heated becomes expanded or rarified, and specifically lighter than the colder air above it. This causes the air within and near the tropics to rise high above the surface of the earth, and flow over both north and south, toward either pole, while colder and heavier air rushes in toward the equator to fill the empty space. These ærial currents are deflected in their courses by the diurnal revolution of the earth, and by mountain ranges whose summits are often covered with eternal snow; and they are still further modified by the varying temperature of the ocean and its peculiar streams.

Heat and water are the fruitful parents of winds and clouds. When aqueous vapor is precipitated in rain or snow, heat that was latent becomes again sensible, and by increasing the capacity of the air to hold water in the form of vapor, prevents a disastrous deluge of this abundant element in nature. The laws which restrain the precipitation of water from the clouds are no less curious than those which cause it to rain at all. The atmosphere must approach saturation before it can rain; and it usually happens that the quanties which will fall on a given area, one hundred feet above the ground, and on the earth, are unequal. Large drops, in falling through many feet of dry air, become smaller by constant evaporation, and may be wholly dissipated before they reach the earth. On the other hand, quite small drops formed in cold regions, high in the air, constantly condense more vapor in falling through a saturated atmosphere, and will be many times larger when they reach the ground than at their starting point.

To illustrate the production of rain, let us suppose that a current of air at 70° temperature, saturated with moisture, meets and mingles with another current, also saturated, but having a heat of 50°. Now, if the atmosphere at the mean temperature of 60° had a capacity to hold water as an invisible vapor, equal to the mean of 70° and 50°, it is obvious that no precipitation would take place. But such is not the fact. The quantity of water held in air heated from 60° to 70° can not be contained in that heated from 50° to 60°. In other words, whatever cools air saturated with moisture, causes a cloud, dew, mist, or rain.

Early and late frosts are produced by the radiation of heat, during clear nights, from the foliage of plants and other terrestrial bodies. If the temperature of the air is not very low at sundown, and is humid, vegetation will so soon reach the *dew-point*, that the latent heat, evolved by the formation of much dew, will prevent a frost. If the atmosphere is dry, clear, and still, the dew-point is lower, and all the circumstances are favorable to freeze the little vapor condensed on such substances as radiate heat with the greatest facility. Any thing which checks the radiation of heat, like a cloud, smoke-screen, or wind which agitates the atmosphere, serves to prevent frost. Every farmer should have a thermometer and rain-gauge, and know the degree of heat most favorable to all his crops. The dew temperature and moisture of the soil are as much elements of production and profit, as good manure and skillful tillage. The writer has studied the growth of corn in differ-

ent months, noting the changes from 4 o'clock a. m. to m., from noon to 8 p. m., and from 8 p. m. to 4 a. m. When the temperature is favorable, corn grows as much per hour in the night as in the day-time. No agriculturist is so far advanced in the science of climatology, as to make all that can be made of the water, solar light, and heat, which nature so bountifully supplies. There is no State in the Union where the mean temperature of summer is too low to ripen maize, or corn, as is the case in England, Scotland, and Ireland. The cutting down of too much timber in some parts of the country has operated to change, in some degree, the climate, and render large districts more subject to alternate drouths and rainy seasons. In summer, when frequent and moderate rains are greatly needed, the air is too dry to yield much more than respectable dews, for many weeks in succession.

To learn the well authenticated results of cleaning forests, in drying up natural springs, and changing climates, regularity of rains, &c., the reader is referred to the writings of HUMBOLDT, KAEMTZ, FORBES, BOUSSINGAULT, and other meteorologists. HUMBOLDT remarks: "In felling trees which cover the crowns and slopes of mountains, men in all climates seem to be bringing on future generations two calamities at once—a want of fuel and a scarcity of water."—(Humboldt, vol. v, p. 173.) The waste of valuable timber in the United States, to say nothing of fire-wood, will hardly begin to be appreciated until our population reaches fifty millions. Then the folly and shortsightedness of this age will meet with a degree of censure and reproach not pleasant to contemplate.

Different plants require unlike degrees of heat and light to bring them to maturity. The potato will produce an edible tuber at a mean temperature so low that neither its own seeds nor those of any cereal can be formed. BOUSSINGAULT found them cultivated in South America at an elevation having a mean heat so low as 49°, requiring eleven months in which to grow, or 335 days between the planting and digging. In many parts of this country, persons begin to dig potatoes in seventy days from the planting; and potatoes planted the 1st of May will be ripe by the 1st of August. In some of the southern States they grow best in the winter season. Winter barley and rye will mature their seeds at a lower temperature than wheat. HUMBOLDT found at Jakoustk, in high Central Asia, where the earth was constantly fozen at the depth of three feet below the surface, both rye and wheat yielding a return sometimes of 15 to 1 of seed. At that place the mercury is frozen two months in the year—the cold being over 72° below freezing. Short as the summers are, they have a mean temperature of 64°. On the northern slope of Monte Rosa, in Switzerland, barley ceases to grow at an elevation of 4,260 feet above the sea; on the southern side it continues to be cultivated at the height of about 6,560 feet. BOUSSINGAULT says that the difference is ascribed to local causes.

In studying the mean temperature and annual fall of rain, including snow and dew, in the United States, and the distribution of both heat and water through the year, one can hardly escape the conviction that no other equal area on the globe has equal agricultural capabilities. Without including Delaware, there are within a fraction of 600,000,000 acres in the southern States. On two-thirds of this vast surface, wheat is harvested early enough in May and June to permit a crop of corn to mature on the same land before autumn frosts. By drawing a line from the Atlantic due west to the Rio Grande, so as to have 300,000,000 acres south of it, on every arable acre two crops of our most valuable breadstuffs can be harvested in a year. Allow one-third of this area for forests, the beds of rivers, and irreclaimable surface, and there are left 200,000,000 acres for cultivation. On the supposition that the south had a population adequate to demand such crops, 100,000,000 acres might be drilled with seed-wheat in November, after corn harvest, putting half the needful fertilizers in with the seed, and sowing the balance broad-cast in February or March, after the English and Belgian practice.

With skillful culture and feeding, an average return of twenty bushels per acre may reasonably be expected, producing an aggregate crop of 2,000,000,000 of bushels. This crop would be harvested between the 15th of May and 15th of June, after which a crop of corn may be grown. With a dense population, as in Belgium, France, and many parts of China, there can never be a real lack of fertilizers, so that sixty bushels of corn can be produced on every acre of arable surface in our thirty States. By this estimate it is seen that the same land which had produced 2,000,000,000 bushels of wheat, might, so far as the *climate* is concerned, easily yield 6,000,000,000 bushels of corn in season to seed with wheat again.

Governor HAMMOND of South Carolina, estimates the present capacity of the slaveholding States as equal to the support of 200,000,000 of inhabitants. To give Virginia as dense a population as Belgium has, (which exports far more of human food than Virginia does,) would require all the people now in the United States to reside in the "Ancient Dominion."

Of the other 100,000,000 acres of arable soil, one-half may be planted in cotton, and enriched no more than to give an average of a bale of 400 lbs. to the acre. This will secure an annual crop twenty times larger than is now grown in the United States, and fifteen times larger than the consumption of the whole human family. There will still remain 50,000,000 acres adapted to the culture of sugar-cane, rice, tobacco, and other important staples.

The United States possess a territory embracing over 2,000,000,000 of acres, more than a moiety of which is susceptible of tillage. Taken as a whole, the country has a climate whose mean temperature and fall of rain greatly favor the production of human food and clothing.

As we are now engaged in laying the foundations of an empire such as the world has never seen, nor scarcely conceived possible, every advantage of soil, climate, natural product, and such valuable trees for timber, fruit, and fuel, as may be profitably cultivated, should command universal care and study.

The following meteorological tables and statistics are compiled from the accounts received at this office, and contain valuable information as to the temperature, fall of rain, &c., in various parts of the United States. We condense as follows:

MEAN ANNUAL DEPTH OF RAIN.

Places.	*Inches.*
Fort Constitution, New Hampshire,	28.85
Watertown Arsenal, Massachusetts,	39.69
Fort Hamilton, New York,	45.71
Hancock Barracks, New York,	36.92
Watervliet Arsenal, New York,	34.22
West Point, New York,	48.70

Places.	*Inches.*
Alleghany Arsenal, Pennsylvania,	28.14
Dearbonville Arsenal, Michigan,	31.30
Fort Brady, Michigan,	31.89
" Howard, Michigan,	38.83
" Winnebago, Michigan,	31.88
" Snelling, Minnesota,	30.32
" Crawford, Wisconsin,	29.54
" Leavenworth, Missouri,	32.68
St. Louis Arsenal, Missouri,	24.12
Fort Smith, Arkansas,	35.64
Fort Gibson, Arkansas,	30.64
Fort Towson, Arkansas,	46.73
New Orleans Barracks, Louisiana,	51.85
Fort Wood, Louisiana,	47.90
Key West, Florida,	31.39
Charleston, South Carolina,	33.89
Fort Monroe, Virginia,	52.53
Fort McHenry, Maryland,	40.80
Washington, D. C.,	34.62
Baltimore, Maryland,	39.90
Boston, Massachusetts,	39.23
Hanover, New Hampshire,	38.
State of New York,	36.
State of Ohio,	36.

MEAN ANNUAL TEMPERATURE IN 1849.

Places.	*Fahrenheit.*
Cambridge, Massachusetts,	47 deg. 48 min.
New Haven, Connecticut,	49 "
Rochester, New York,	46 " 68 "
Penn Yan, New York,	45 " 46 "
Newark, New Jersey,	50 " 89 "
Delaware county, Pennsylvania,	52 " 37 "
Near Louisville, Kentucky,	53 " 8 "
Columbia, South Carolina,	61 " 62 "
Jackson, Mississippi,	65 " 64 "
Fort Madison, Iowa,	49 " 62 "

BEES.—No. 2.

DRONES.—The object and uses for which drones were created have been a mystery, to some extent, through all ages. The opinions of naturalists and apiarians have ever clashed on this subject. Some have thought that their duty was to incubate, or hatch the eggs, by sitting over the cells, thereby generating the necessary heat; others, that their presence in the hive, though not located to any specific duty, was requisite to generate a proper degree of animal heat to develop the young brood; others, that a seminal aura exhaled by them, and attached to the eggs, imparted the life principle. The visionary theories and vagaries of the ignorant were, and are at the present day, wild and extravagant—some ascribing to them this duty, some that duty, and some no duty at all, but simply considering them a disadvantage to the welfare of the apiary, and the sooner got rid of the better.

Of late years more light has dawned on this subject, and it is now pretty well settled that the use of drones is solely to impregnate the queens. It has ever been known that they were *males*; but the fact that 500 or 1000 of them exist in every hive, threw another cloud of mystery over the matter, since but *one* female exists. Now, the solution of this question is thus unfolded:—The impregnation of the queen takes place *on the wing*. She never leaves the hive after issuing with a swarm, but *once*, until she again issues the next season with a swarm. This solitary departure from the hive is always within three days after the hiving, and generally the next day, and only occurs with *young* queens; the old ones being impregnated on their first issue, continue operative for life. If any one will patiently watch a hive in which a swarm is placed, with a young queen, (all swarms after the first,) he may discover her issuing, first rising a few feet and taking a short circle, and then returning, as if to mark well her tenement, lest she enter a wrong hive on her final return, if there be others; then suddenly re-issuing and rising in horizontal elongated circles, until lost to the sight. This departure takes place between 12 M. and 2 P. M., at the time when the drones issue and also take an ærial flight. Hundreds of drones are flitting to and fro at this period, high on the wing, and the queen can not fail to come in contact with some of them, and thus effect the object of her flight. She is absent from the hive about an hour. That coition takes place on the wing, is evident from the well known fact that humble bees perform their amours in this way, and most, if not all other winged insects. The great apparently useless number of males in this case is only in accordance with the wisdom of Nature in providing enough to always ensure the fertility of a queen, as the prosperity of the colony depends upon her immediate fertility. Much may be said in further illustration of this subject, but my limits here forbid it. T. B. MINER,

Author of the American Bee-Keeper's Manual.

Clinton, Oneida Co., N. Y., 1850.

APPEARANCE OF THE CROPS.—GEOLOGY

MESSRS. EDITORS:—I am about to recommence farming after the sage advice of the quaint old Richard—"either hold or drive;" and that I may drive after the most approved fashion, I must have your valuable paper. Please consider me a subscriber for the year.

I have just made a trip across the State, from the Pennsylvania line, and thinking a brief description of the appearance of crops might be interesting to your readers, I will briefly give it. In the southern section the grass appears very backward, owing to the late spring and long continuance of cold weather. Within a few weeks there has been a rapid gain; still it is quite thin, and I judge there will be a short crop of hay. Corn is coming in well. The late warm weather is the true corn weather—thermometer 84° in the shade. The early planted is not doing as well as the late—say the last of May. I planted the last day of May, taking the precaution to soak my seed in a solution of saltpetre, and not a hill failed—hardly a kernel. It is now farther advanced than that planted the tenth of the month, while the ground was yet cold. A late fall and warm summer will give a good yield of corn. Along the Genesee flats—these miniature prairies—this crop looks better than on the hills. Oats appear well, and a good quantity sowed. Of wheat I saw but a few fields until I reached Portage and Hume; in Canadea, a little. The weather of the spring has been favorable to this cereal—it has kept back the "fly," there not being sufficient warmth to hatch the eggs until the stalk was so far advanced that it could not be injured by the insect. I heard no complaint from any farmer, or in any neighborhood, from this cause. From Mount Morris north, the wheat looks well, except where winter-killed.

How beautifully, Messrs. Editors, is the theory developed, that the limestone rock, especially the Onondaga salt group, is the true source of the wheat growing soil. By traveling from the south line of the State to the north, while you are on the Chemung group, tipped with the conglomerate at and near the State line, you will hardly hear of a field of wheat in a ride of many miles. As you draw near the Ham-

ilton group, they become more frequent. Passing over this shaly region, on every side you see very good fields of wheat; but on the next series—the limestone—wheat becomes the crop. While writing of this striking fact, I am reminded of a Yankee farmer from Connecticut, who, when the "Genesee country" was far on the utmost verge of the west, becoming tired of rye and Indian, determined to find a country that would bear wheat. He had heard that on the Delaware river, in northern New Jersey, was the land of this crop. He sold his paternal acres, and emigrated to the banks of the Delaware. Experience soon showed him that only the first crop from the stump was good for this grain. The Chenango valley then had a reputation for wheat. He sold out, and reached "Chenango Forks." A few years satisfied him that although he seemed to be nearer the desired land, still he had not attained his mark. A German emigrant, returning to Pennsylvania from the "lake country," informed him that limestone land was the land for wheat, and that between the lakes he could find a good wheat soil. Pulling up his stakes for the third time, he soon reached his El Dorado, as happy as any recent gold-hunter in California. In Seneca county he became a successful grower of wheat to his heart's content. How slight a knowledge of geology, and of agricultural chemistry, would have taught this man the true spot to strike in his axe and thrust in his plow, and not be twice disappointed. A New Subscriber.

REMARKABLE FLEECES.

Messrs. Editors:—An article headed as above has appeared in the Cooperstown Freeman's Journal, stating that Mr. C. Vanhorn of that town, sheared 81½ lbs. of wool from 14 sheep, 12 of them being ewes, 10 of which had lambs; two were yearling bucks, that gave 17½ lbs.; that five of the number were full blood Merinos, and the others crossed with the English breed; that the sheep were well washed and perfectly dry when shorn; and asking if it can be beat.

If Mr. Vanhorn has sold his wool for cash, we should like to know the price, as we could tell better whether he could be beat. My sheep were shorn on the first week in June last, and from 2 bucks three years old, and 12 ewes, all full blooded Merinos, I sheared 86½ lbs. of wool. Seven of the ewes had lambs by their sides, the other five were yearling ewes that of course had no lambs. The fleeces of the two bucks weighed just 20 lbs.—one weighed 10 lbs. 11 oz., the other 9 lbs. 5 oz. They were all well washed, and dry when shorn, and the wool done up in good order and sold at home for 37½ cents per lb., to E. Baker & Co., of Burdett, who have bought my wool every year for five years past, and are therefore well acquainted with it.

My flock consists of about 300. Four of my bucks, three of which were three years old, the other five, sheared 37½ lbs. Two of them are for sale. My stock buck "Columbus," which is three years old, and which gave the 10 lbs. 11 oz. fleece, and has sired all my lambs for two years past, is from the flock of Mr. Stephen Atwood of Connecticut. I think him the best buck I ever saw. Reed Burritt. —*Burdett, Tomp. Co., N. Y., July*, 1850.

A farmer should never allow his wood-house to be emptied of wood during the summer months.

IMPORTED FRENCH MERINO SHEEP.

Messrs. Editors:—I was thinking that perhaps it might be somewhat interesting to the readers of your valuable paper, to give them a brief account of my imported French Merino sheep, as there seems to be some considerable excitement in reference to them in your State. I will give you the weight of fleeces of 83 of my French imported Merino ewes, in comparison with the weight of carcass. I should have been glad to have given you the weight of carcass of each sheep separately, but it would make too long a list; I therefore give you the weight in gross. Weight of carcass, 10,458 lbs.—average weight of each sheep, 126 lbs.; this includes 27 lambs only ten months old when shorn. Gross weight of wool of 83 sheep, 1494 lbs.—average weight of fleece of each sheep, 18 lbs.; only one year's growth, except 27 lambs ten months' growth. This, I see by the figures, gives me 2 2-7 ounces for every pound of flesh. I raise from these ewes three crops of lambs in two years, which I think retards the growth of wool in a measure, particularly for the first four weeks after dropping their lambs, and for two weeks after weaning time. The smallest fleece was from a ewe lamb ten months old—13½ lbs.; the heaviest from a ewe three years old—25½ lbs. of one year's growth, unwashed. Manufacturers and other men tell me that it is full enough to deduct one pound in five for river washing, so that it would give each sheep 14 2-5 lbs. of washed wool, long, fine, and soft. These are the sheep that I am now breeding. I have 105 ewes, old and young. I have recently purchased of Mr. John A. Taintor his entire flock, so that I have in my possession all of the ewes of this blood in the United States, except 27 which are owned by other individuals scattered over the country. I have made three crosses with the French bucks on my old flock of American Merinos, with the utmost satisfaction—it has proved the best cross I ever made, by all odds. My half-bloods are selling from $5 to $10 more per head than I used to sell my old stamp of Merinos, and shear from 1 to 2 lbs. more wool per head, and of finer quality. I have sheared 100 of my American Merino sheep, to compare with my French Merinos. I find the gross weight to be, in the same condition of flesh and age, 9000 lbs.—the average weight of carcass for each sheep, 90 lbs.; the gross weight of fleece, 650 lbs., unwashed—average weight of fleece, 6½ lbs.; giving me 1 1-6 oz. for every pound of flesh, making a difference in favor of the French Merinos of over 1 oz. for every pound of live weight. This is a very great difference, while the difference in weight of carcass is only about one-third. The French Merinos must be *the sheep*. I have also kept a little track, the past winter, of the relative value and difference in the consumption of food between the two breeds. I find that the Frenchmen will consume only from one-fourth to one-third more food than my old flock.

I have noticed one very peculiar characteristic in the French sheep—their quietness, and aptness to take on flesh. I have turned 41 ewes into a pasture of not more than eight acres; they have been in the pasture three weeks, and I will venture to say that they have not traveled over one-half of it yet, while my other sheep would have traveled it over a thousand times. This one thing is one great reason why they take on flesh so easily; they eat and then lie down. The more easily an animal fattens, the less

food will it take to support them. To say that all animals of its kind will consume food in proportion to its live weight, is erroneous in the extreme.—This trait in a sheep has been too much overlooked and disregarded. Men have considered this feature in a sheep hardly worth noticing, while the same thing in a horse or an ox would be regarded with peculiar care. I have thought for years that this was one of the essentials in a good sheep. If a man regards expense at all, he would value any animal higher that has this trait fully developed. Too many men, who pretend to be celebrated breeders of all kinds of stock, are too much carried away with one prominent trait of an animal, to the covering up of almost all the rest. Fancy goes a great way with too many men, to the exclusion of many valuable points. There are many fancy animals which would sell for high prices, that are perfectly worthless as breeders. I go for an animal that combines the greatest number of good points, and those points finely developed, whether in sheep, cattle, or horses. This ought to be a grand governing principle in a thorough breeder of either. To breed animals that have the intrinsic value engendered in them, that will be productive of some good to himself and his country, ought to be the aim of every man. Too many men go for a cheap thing; and it oftentimes proves itself to be cheap both in the pocket and out. I think as many as two-thirds of the men who breed sheep, would use a buck to their ewes bought for $5, because it is cheap, rather than pay $50 or a $100 for an extra animal; and it proves to such men, in nine cases out of ten, prodigious cheap. I go for the value in the animal — the more the better, — and I contend that a man gets a greater return for his money expended, by far. We will take, for illustration, Black Hawk colts. There are many men here who have most excellent breeding mares, who have actually disgraced them by putting to a horse to warrant a colt for $5 — the colts, when four months old, you could hardly raise a bid for at $15 — while other men have gone to Mr. HILL, the owner of Black Hawk, and paid him $20 for a colt that will sell, when four months old, for $100 to $200, and even $500.

There is a man living a few rods from me who has a Black Hawk colt two weeks old; he has refused $200 for him. Another man, a few rods farther, has one three weeks old, and has positively sold him for $500 when four months old. Where is the comparison between the two? The one pays $5 for a colt, and sells for $15; the other pays $20, and sells for $500. This is no unusual occurrence. There never has been a single Black Hawk colt sold, to my knowledge, for less than $100, and from that up to $1500. I say again, where is the comparison? Eternity will close in upon many a man before he gets his eyes open to these things, or the opportunity of breeding from valuable animals may be gone by. The same thing holds good in reference to sheep and cattle — it is far the cheapest to breed from the best animals, regardless of expense. I am, for one, in for improvement regardless of expense and the cackling and barking of men. *Taintor* sheep, *Black Hawk* colts, *Hereford* and *Durham* cattle, — this is the true doctrine, together with the improvements in agriculture, commerce, and manufactures. These are the step-stones to our own wealth and happiness, as well as that of our country. A. L. BINGHAM.—*Cornwall, Vt., June*, 1850.

PLAN OF A FARM-HOUSE.

A, Front Kitchen, 18 by 14. B, Bed-room, 8 by 10. C, Pantry. F, Closet. E, E, small Cupboards from Pantry. D, Meal-chest. G, Piazza. I, Hall. H, H, Parlors with folding doors, each 16 by 14, or both 28 by 16. K, Bed-room. L, Back Kitchen. P, P. Passage. O, Wood-house.

MESSRS. EDITORS:—I herewith send you the ground plan of a farm-house, which I think meets the wants of a very large class of your readers better than any I have noticed among the many excellent ones presented in your valuable paper. First, I think a farm-house should be convenient; for convenience saves time, and time is money. Second, It should be substantial, and exhibit architectural beauty, to some extent at least; yet the expense should be graduated by one's available means. The great objection to most of the plans offered, is, they are too expensive. A majority of your readers are men of small resources; very many are largely in debt; yet many of these must have houses to shelter them, who can ill afford to expend $1500 or $2000 in a house. Right glad am I, Messrs. Editors, that you inculcate upon our farmers the *duty* of keeping clear of debt as far as possible. The idea is a good one, and our minds need often to be stirred "up by way of remembrance," on this subject.

Thinking my house combines convenience, economy, and good taste, to some little extent, I place the within plan at your disposal. It is built one and a half stories in height, and very nearly upon the within plan. I am now erecting the wood-house, &c. The main building is 28 by 24 feet; wing, 20 by 18; wood-house, &c., 20 by 26. It is bricked between the studs, lined with inch boards, and clapboarded. The wood-house and back kitchen are to be boarded up and down, and battened with inch stuff. Walls of the lower rooms are mostly hard-finished. Painted inside and out. The cellar extends under the whole house. A very large cistern in the cellar, directly under the pantry and bed-room, with a stop-cock to draw water into the cellar, which, being filtered, is used for dairy purposes. The cellar bottom is plastered with water-lime. The house is well and substantially built, and cost, including board and team work, about $625. The

wood-house will cost something over $100. It was built by the job, and I think it was done at a low rate. But a similar house can be built here, with good management, for from $800 to $900. Some will say it is too small; but to this I reply, *room* often depends more upon *arrangement* than *actual size*. A small house is easier cleaned, easier taken care of, easier warmed, and furnished with less expense than a large one. RUSTICUS.—*Rutland, Jeff. Co., N. Y.*, 1850.

SUB-SOILING.

MESSRS. EDITORS:—Did you ever hear of *skinned* land? If not, I will explain the term, this wise: Land that has been cropped for a long succession of years skin deep, i. e., worked four or five inches deep; the manures made upon the place sold each spring to the neighbor paying the best price for it. Just such a place of twenty-five acres, beautifully located near our city, I have recently purchased, intending to ride my hobby *Horticulture* to my heart's content. My first step was to doom to the dung cart a pair of horses, who ply steadily their three cords per day, consisting of stable manures, leached ashes, limed hair, charcoal from the rectifyer's, sweepings from the smith's shops, bones, old plaster, lime rubbish, and last though not least, street dirt. These ingredients are carefully spread over the land, preparatory to the *stirring* of the soil, to which particularly I wished to draw your attention. Having purchased from your townsmen Messrs. RAPALJE & BRIGGS a No. 2 Nourse & Mason sub-soil plow, the novelty of the tool excited so great an interest that I extended invitations to some twenty practical and amateur farmers to be present at the trial, not one of whom had ever seen the operation of sub-soiling. Having fully examined the nature of the soil, I determined to run the first furrow with the common plow nine inches deep, turning over a fine and mellow loamy soil. This was followed by the sub-soil plow, drawn by four oxen, eight inches deeper, crumbling and rendering permeable and light without bringing to the surface *gravel pan* or other dead and inert matter, but comminuting earths rich in organic materials, that have lain dormant doubtless for ages. Here was the charm! Our friends looked with delighted astonishment—conviction flashed upon the mind—perfectly satisfied of the great and important results that must follow the act, in giving depth for roots to penetrate—in placing a check upon the usual destruction by summer drouth, and the assurance of moisture at those times by capillary attraction, the greater amount of heat and atmospheric influences earlier in the season, with all those chemical effects nature calls to her aid to produce vegetable growth when relieved by the incubus she has been weighed down by.

The land was left as light as a feather bed—indeed, equal to a well trenched garden, the surface being raised some ten or twelve inches above the former level, a stick easily penetrating to the full depth of seventeen inches! Is not this the great and fundamental step towards rejuvinating my poor skinned land?

My farm operations are, for the season, principally experimental, such as ordinary plowing of seven inches and sub-soiling seventeen inches alternate strips, each having the same manures, and seeding to oats, corn, potatoes, &c.; also, top dressing new grass land in sections, with charcoal, domestic poudrette, plaster, stable manure, lime rubbish, guano; besides which, I am planting some 1000 additional fruit trees, &c., &c. The results of these various experiments I hope to detail for the *Farmer* at a future time.

In the draft of the sub-soil plow, we exchanged the oxen for a three horse team, and again to a single pair, which, by the by, were fine ones, and with the exception of hard gravel pan, or plastic clay, two horses worked it without severe fatigue. Three horses abreast or a heavy yoke of oxen, however, make the most desirable team.

Our friends retired with the full conviction of the utility of sub-soiling, and the determination of troubling Messrs. R. & B. for what they may have on hand of that pattern. W. R. COPPOCK.—*Longsight, Buffalo, June*, 1850.

WE thank our correspondent for the excellent example which he has set not only to the farmers in the vicinity of Buffalo, but to the many thousands who will read his valuable communication in this journal. The experiments of one of the most enterprising and skillful horticulturists in the "Queen city of the Lakes" will be more than welcome to our columns.

A HALF DAY IN EAST WAYNE COUNTY.

A FEW hours of unexpected leisure in the village of Clyde, town of Galen, on the 9th inst., were employed in the following agreeable manner. First, I visited the farm of JOSEPH WATSON, Esq., the President of our County Agricultural Society, adjoining the village. He has at his homestead fifty acres of land, including five acres covered by a cemetery and river. The balance, except an ash swamp reclaimed into a pasture lot, and an adjoining lot of six or eight acres of similar kind this spring put into broom corn, has been raised, mostly by Mr. WATSON'S personal labors, to the highest state of cultivation, so that an accurate account kept proves the proceeds of this little place last year to have been about $900, and two years preceding about $800 each year. This year the yield promises greater than last, owing to that muck swamp now covered with broom corn having been reclaimed, giving promise of extraordinary crops. A good share of the farm has been reclaimed from sunken swamp-holes, by means of numerous ditches and careful cultivation. His ditches, and fences particularly, are the best I have ever seen on any farm, and many of them are peculiar to this farm. Some of the fences in a conical form cover deep open ditches, and many others are moveable and are kept in their position in the most economical and durable manner. His crops embrace the choicest varieties of all kinds; some of his acres are covered with kinds raised in a series of years from a single head of grain picked up two or three years ago at an agricultural exhibition. I need hardly say that Mr. WATSON'S crops are enormous, and his stock is such as we should expect to find on such a farm, while his fruit trees exhibit not only scientific cultivation, but also *pruning*. His barn and out-houses, mostly erected by Mr. WATSON in his leisure hours, combine more homemade economy and convenience than I have ever found in the possession of any one farmer. His horse-power attached to his threshing machine and fanning mill, is so perfect that with one horse it will also turn a circular saw for sawing his wood and making the

repairs and improvements to his buildings, a small grist mill which grinds all his corn and coarse grains, a cider mill, and various other conveniences. Truly this is a "gem" of a farm.

I next spent an hour on the farm of Mr. B. H. STREETER, one mile east of the village. He has a noble farm of three hundred and twenty acres, which he purchased not a year ago; but he already exhibits abundant evidence that not many years hence it will be one of the best farms in this or any other county. A barn is on the place, erected at a cost of $1500, which combines more excellence and convenience than I have ever met with. Mr. STREETER has already a variety of full blooded stock from the best herds of our State, and among which I noticed with high gratification a pair of twin three years old steers of native breed, so perfectly alike in size, color, and every mark, that the owner himself can only tell them apart by the slightest possible turning in of the broad spreading horns of one of them. They are of bright red, except about one foot of the tail of each being white. The combined weight last winter was over 3,200 lbs., and they are considerably heavier now, although neither is 10 lbs. heavier than the other. I was much pleased to learn that Mr. S. regards with favor the proposal to take them to England to the World's Fair next year, for I am confident our whole country can not produce a handsomer specimen of our common stock.

I spent the next hour or two on another "gem" of a farm of fifty acres, owned by Mr. MATHEW MACKIE, one mile north of Clyde, and I will only take the time needed to refer to the trees, fruits, and flowers, on Mr. M.'s beautiful place. He has a few of the best trained evergreens in his front yard I have ever seen, and he has among them the choicest new kinds also. His fruit trees numbering thousands, label an assortment including those new and rare seldom to be found in our established nurseries, and all in the highest pitch of cultivation. The same may be said with reference to his multitude of roses and other flowers, some of which are very rare, among which I noticed the finest standard by far, of the Chromatella, or Cloth of Gold rose, I have ever seen in any collection. His vegetables and smaller fruits, such as strawberries, raspberries, &c., showed the same extensive assortment and extraordinary cultivation. And what interested me particularly, was Mr. MACKIE'S numerous and careful *experiments* now in progress. His assortment is now so large that he can hardly avoid propagating considerably for the benefit of his neighbors and others. I have thought that the western part of Wayne county could exhibit rare collections of fruits, flowers, &c.; but I much doubt if any hard working farmer in this or any other county, can exhibit so much skill, judgment, and taste, around their domicil, as does Mr. MACKIE.

On my return I saw a very fine hedge started, composed of the common thorn of the country.—Time did not permit me to visit the splendid farm of Mr. BRIGGS, five miles north, which Galen intends shall prove to be the premium farm of Wayne county. The initiatory steps have been taken by the spirited citizens of Galen, towards establishing an agricultural school at Clyde. Mr. WATSON has made a very liberal offer of his farm in fee simple, free, excepting a small yearly annuity to himself and wife during their life, and a committee has been appointed to carry the matter forward.

Now, Messrs. Editors, after such a development of some of the hidden resources of the retired town of Galen in the quiet county of Wayne, can you wonder that this very town has obtained your premium of the $30 Agricultural Library by the largest list of subscribers (some 389) to the Genesee Farmer? This fact has suggested to me my apology for the length of this communication. R. G. P.—*Palmyra, N. Y., July*, 1850.

SALT AS A MANURE – AGAIN.

THE PRESS, no doubt, is the greatest blessing human ingenuity has conferred upon our race. Man is, or ought to be a social being, and through the medium of your cheap and useful publication, Messrs. Editors, we can quickly convey to each other our ideas and sentiments. In the January number of this year, I gave my views, which are original, on *Salt, &c.* In the March number I am called upon to give a little more light on the subject. I think friend JEWETT does not read me correct, as he says I commenced by "putting on a small quantity of manure." I had not manured the land for four years, and then but very little. Again, I am called upon in the April number, by R. H. J. of Lockport, to give some further information on this subject. This friend has also mistaken the reading of the second article. I meant a peck of soaked corn over a two or three acre field, not a peck of arsenic. I am not a chemist; but, like R. H. J., wanted to know what effect mother earth would have on arsenic. I inquired of Professor DEWEY, who informed me that the earth would not destroy its poisonous qualities.

Since I published my views on salt and insects, I have met with two paragraphs which coincide with my views to a tittle. The first is the opinion of Professor AGASSIZ, on the multitudes of insects that infest the earth:

INSECT LIFE.—Professor AGASSIZ says, more than a life time would be necessary to enumerate the various species of insects, and describe their appearance. MEIGER, a German, collected and described 600 species of flies, which he collected in a district of ten miles circumference. There have been collected in Europe 27,000 species of insects preying on wheat. In Berlin two professors are engaged in collecting, observing, and describing insects and their habits, and already they have published five large volumes upon the insects which attack forest trees.

Only think of that, brother farmers, 27,000 different species of insects preying on wheat. This is a startling fact, and calls for the consideration of the best means for their destruction.

The following, on the use of *salt*, is from Bell's Messenger, (a London paper,) of May last:

The application of common salt as a manure produces this effect, in one mode, which is evidently double advantageous to the farmer. We allude to the destruction of insects, and the conversion of the substances of which they are composed into the food of vegetation. It is needless to enlarge upon the countless tribes of insects of all kinds, which tenant the farmers' lands, and prey upon their crops. It will be more useful on this occasion to direct our attention to the powerful action of common salt in effecting their destruction. In producing some fresh evidence of this fact, it will be well to remember that this important use of salt is not a recent discovery, for it is now sixteen years since we find inserted in a work on the uses of salt in agriculture, (Johnson on Salt,) reports from different counties, amply proving its powerful effect in the destruction, among other insects, of slugs and worms. There were, for instance, those of Mr. JACOB BUSK, of Ponsbourn Park, in Hertfordshire. His valuable experiments extended over some hundreds of acres of wheat. To use his own words—"In every situation, and at every time, the effect appeared equally beneficial."—The quantity per acre—"about four or five bushels, sown

out of a common seed shuttle." The period—"in the evening." The effect—"in the morning each throw may be distinguished by the quantity of slime and number of dead slugs lying on the ground. In some fields it has certainly been the means of preventing the destruction of the whole crop." In Oxfordshire again, "six bushels of salt per acre were applied by hand, in April, to a field of oats attacked by the slugs and worms, on the farm of Mr. John Slatter, of Draycote, near Oxford. The crop was completely saved by this application, although an adjoining field, not salted, was completely destroyed by this sort of vermin." It is ascertained that the salt readily penetrates sufficiently into the soil to destroy many of the insects in their cells. "Common salt," Professor Way observed some time since, "may be advantageously employed as a manure directly to the soil or it may be mixed with the dung heap. In the latter application of it, it must be borne in mind that, in large quantities, it is capable of suspending fermentation altogether, so that if the farmer wants his dung to heat well, he must be careful in the use of salt; but, in small quantity, during the fermentation, or in full supply to the manure a short time before its application to the land, salt is likely to be of great service. Not only does it render the ammoniacal compounds less volatile, but it is capable of destroying the germs of both vegetable and animal life, for there is little doubt that we too often introduce into the soil, with the manure, the weeds which choke and the insects which devour our crops. Salt will prevent all seeds from germinating when they are sufficiently saturated with a solution of it. No fear, however, need be entertained of its effect when the manure has been properly mixed with the soil; it is then too diluted to interfere with the germination of the turnep seed."

I am satisfied of the benefit of salt, and strongly recommend it to destroy insects; and I also believe in its fertilizing qualities. On fallow it should be used. I intend to try a single acre with three barrels. If I am spared, I intend, in a future number, to give some farther views on the efficacy of salt. The busy season coming on, at present forbids it. John Park.—*Gates, 7th mo.*, 1850.

Having observed in the Rochester American, last year, a statement, by John Park of Gates, of the favorable result of using salt on his land for wheat, and being favorably impressed by the beautiful brightness of the straw as well as the plumpness of the grain raised by him, I was induced to apply salt to a part of a field, on which I intended to sow wheat. The result is, you can discern to a shade where it was applied, by the superior brightness of the straw, as well as the larger sized heads, over the part of the field not salted. J. Chappell.—*New York Mills, Rochester, July* 18, 1850.

S. W.'S NOTES FOR THE MONTH.

Paine's Hydro-Electric Light.—Throw a pail of water on the glowing coals discharged from a cupola furnace, and a dull green flame will flash up from the decomposed water. I trust Paine can do no more than this towards illuminating the world with the elements of water alone. From his own tardy admission, it now appears that his *bright light* was only made by the aid of carbonaceous matter in the form of *spirits of turpentine*. All those who believe in God's provident wisdom, may now return to, if they have been jostled from, their faith, and believe that he has not placed so much carbonaceous matter in this world of ours, to remain unused,—fossil coal is still to be made a necessary article of fuel—the great cetaceous leviathan is still to give employment to our whaling fleets—the southron is to continue to convert his long leaved pine into spirits of turpentine—and the maker of alcohol may yet abstract from beverage, for the benefit of flame and Doctor Townsend's Sarsaparilla, as much corn whiskey as he pleases.

The Weather and the Crops.—Never, perhaps, in our rural annals, did vegetation ever progress faster than it has in Seneca county, since the 3d of June last. It would seem that heat and moisture has done the utmost to produce the greatest vegetable growth in a given time. It is now the 16th of July. A heavy crop of clover has already been secured. Our farmers are now cutting wheat; and all agree that this cereal will be an average crop in spite of the worm; Mediteranean wheat has invariably escaped the insect, and much of the early sowed bald, on warm and well tilled land, has got ahead of the fly, although much wheat in low places has been injured by it, and in some cases entirely destroyed. Indian corn, that great, unfailing *indigene* of our country, was hardly out of the ground on the 3d of June; now it is forming its green ears, in the full promise of early, luxuriant maturity.

Tile and Pipe Under-draining.—The advantage of under-draining, in enabling the wheat plant to outstrip its enemies, was never more apparent than it is this season; as every crop about to be taken from well drained fields, will suffer little diminution from either winter-killing or the *C. tritici*; while the weak rooted plants of wet places, give a stinted yield that will hardly remunerate the farmer for the seed and culture. B. F. Whartenby makes, at Waterloo, about 40,000,000 tile and pipes monthly, with the machine imported by President Delafield. For the benefit of distant farmers, I will here say, that machines from the same pattern, with improvements, are about to be made here at Purdie's foundry.

The great increase of our Agricultural Exports.—The export of our cotton has about doubled in the last eight years. In 1842 the total export of Indian corn from the United States to Great Britain, amounted only to 123,665 bushels; whereas, our export of the same article last year, to that kingdom alone, amounted to above twelve millions of bushels. Our export of provisions, including hams, lard, cheese, butter, &c., has increased in a much greater ratio. In 1842 our export of hams to England was only 160,274 lbs.; in 1849 the export of that article to Great Britain alone, was rising of fifty-three millions of pounds. British agriculture has been so long pampered and enervated by corn laws and protective duties, that the present competition from without causes loud complaint from both landlord and tenant. John Bull can beat Brother Jonathan at grumbling. Jonathan, instead of employing his time entirely in such an expedient for his bad luck, goes to work manfully with renewed energy, employs labor-saving tools and machinery, instead of supernumerary hands, sells off a part of his stud, and reduces his farm expenses. But John does nothing like this; he looks to a new ministry, and with it a return of that bounty on his products, or rather a tax on his neighbors, which he considers as his indefeasible right.

How to cure sick Peach Trees.—Dig away the soil from the tree, remove all excresences, dead bark, &c., near the root, and destroy the worms; then fill the trench around the tree with water well saturated with hen dung or other nitrogenous manure; the liquid should be as warm as the atmosphere. Two or three applications of this kind in a week, will bring a healthy appearance to the folinge, almost immediately. *Waterloo, N. Y., July*, 1850.

PIGEON WEED, OR RED ROOT.

MESSRS. EDITORS :—I improve a moment to inquire of you what can be done with the destructive and noxious weed called the "Pigeon Weed," which is running us out in this section of the country. Some crops of our wheat are almost entirely run out by the weed. Some are on the eve of consideration, while others have come to the conclusion that they can not raise wheat unless there can be some remedy resorted to, which we are as yet unaware of. If the Editors of the Farmer can give us any information in regard to the above inquiry, it will be thankfully received through the Farmer. CHAS. W. HOBART.—*Yatesville, July,* 1850.

An excellent essay on Pigeon Weed, or Red Root, was written by CHAS. M. STARK of Yates county, and published in the N. Y. State Transactions for 1846. It was published in the February number of the Farmer of 1848. We think we could not better answer our correspondent than by copying a part of this essay :

"The first thing to be considered, is the fact that red root is a biennial plant that will not germinate to any great extent in the spring, it being its nature to come up in autumn, and can not therefore be eradicated without fall plowing. I would recommend the following practice : The first crop, wheat ; the ground to be plowed but once, at least eight inches deep, which should be done in July, after which it should be thoroughly pulverized with a cultivator, to the depth of four inches. My reason for preparing the ground in this way, is this : the most of our land is seeded down after wheat, and of course receives its red root seeding at the same time ; consequently a very large proportion of the seed lies near the surface. If this be turned under to the depth of eight inches, but a very small portion will germinate, and the wheat will be to a certain extent free from its pernicious presence ; if plowed twice, the seeds are mostly thrown back to the surface, which is admirably adapted to the increase of the pigeon weed, while once plowing is found to be at least as good, and I believe decidedly better for the wheat. If it be possible, the red root should be pulled out of the wheat ; but if the quantity be too great for this purpose, a more protracted effort must be made to destroy it.

"The wheat stubble should be plowed in the fall, just as deep as it was for the wheat, and well harrowed. In the spring the ground may be plowed, (as shallow as possible ;) but I deem it decidedly better to use the large cultivator with steel teeth, as not one spear can escape if it is thoroughly cultivated, and the ground will be in better order for the crop, which may be barley, oats, or spring wheat ; but in my opinion, should be peas. The ground should be again plowed and harrowed in the fall. In the spring let the operation with the cultivator be repeated, and the ground planted to corn. If this be placed three feet apart each way, and tilled with a cultivator, no weed of any kind need be grown among it. This crop should be planted as early as the season will admit, to give time for another plowing in the fall, when the ground should be harrowed as before. In the spring the same thorough use of the cultivator is necessary, and the land may be sown to barley, peas, or oats, which must be decided by the crop raised the second year. If peas, then barley or oats may follow ; but in no case should the same crop be grown in the rotation. I think it the better way to sow flax for the seed, because I consider it as profitable as any other summer crop ; and as the ground should now be seeded with timothy or clover, I believe flax is the best summer crop that grass seed can be sown with. Flax should be sown early; twelve quarts to the acre. I think this rotation must destroy the seed in the ground, as all that germinates in three successive years dies, without the possibility of leaving seed. If any yet remains in the earth, the quantity must be so small that it may be easily pulled. We might now sing a requiem over departed pigeon weed, and read the burial service over red root, were it not that, Phœnix like, there is vitality in its very ashes. Though death and decay may surround it, yet in its stone tenement it is safe, and with patience it awaits the day of its resurrection, which will as surely come as the manure is removed from the barn-yard to the field.

"The destruction of the seeds carried to the barn with the wheat, is the most difficult part of the subject ; and in order to effect it, no pigeon weed must go into the barn ; for if it be carried there, it will be taken back again, and no system of rotation or anything else will ever subdue it. I feel very diffident about advising any farmer to burn his straw ; but in this case I think the benefit derived from the destruction of the seeds of this weed, would be at least an equivalent for the straw destroyed, (or rather decomposed ; for nothing *can* be destroyed.) It is the decision of agricultural chemists, that a large proportion of wheat straw is taken from the atmosphere, and that every particle derived from the soil may be found in its ashes. As this has been proved by actual experiment, there can be no real loss by such a conflagration. The proper method is, to stack the wheat in the field, and as it is threshed burn the straw on as small a space as possible, as all the heat that can be obtained from it is necessary to destroy the vitality of the seeds of the pigeon weed. I believe it would be profitable in many cases, to mow the stubble and burn this also. The ashes should be gathered up and housed until they can be used in the compost heap, or otherwise returned to the soil. It may be thought that this system is too great a tax upon the land, there being no return made in manure ; but this is a groundless objection ; for any farmer, following the rotation, may apply artificial or barn-yard manure to either or all the crops raised, as his judgment may dictate. The soil will receive the manure made from the peas, oats, barley, and corn ; and clover seed may be sown with either of these crops, except the last, and the clover plowed under in the fall, (a practice, by the bye, I would by no means recommend.)

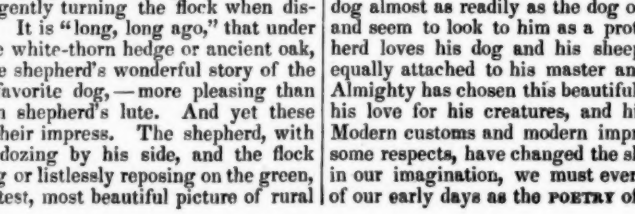
"The manure that has already accumulated in the barn-yard should be drawn out upon a sward, and the ground planted to corn, with the following rotation : 1st, corn ; 2d, peas, barley, or oats ; 3d, flax ; 4th, wheat. The pigeon weed should be pulled from the wheat, if possible ; if not, the first rotation may be applied after the ground has lain two years in clover.

"It should be borne in mind, that the presence of pigeon weed is a positive tax upon the farmer, and that every dollar successfully expended in its removal is to him an absolute gain."

In speaking of his efforts to destroy pigeon weed, CARLES HANFORD of Genesee county, writes—"I should be well paid for my trouble, if all farmers would either pull their red root at the time of blowing, or burn all they pull up, instead of placing it in the wagon-track of the road. When muddy, the the seed and mud cling to the wheels, shake off in the barn-yard, get with the manure, and then into the wheat-fields. It requires more labor to rid a farm of this weed than of Canada thistles."

THE SHEPHERD'S DOG, &c.

Years have passed over our head since in youthful glee we wandered among green pastures, admiring the flocks of sheep quietly feeding on the gentle slope, watching the gambols of the playful lambs, and the faithful dog obeying even the slightest motion of his master, and gently turning the flock when disposed to wander. It is "long, long ago," that under the shade of some white-thorn hedge or ancient oak, we listened to the shepherd's wonderful story of the sagacity of his favorite dog, — more pleasing than fairy tale, or even shepherd's lute. And yet these scenes have left their impress. The shepherd, with his dog quietly dozing by his side, and the flock peacefully grazing or listlessly reposing on the green, is to us the brightest, most beautiful picture of rural life. It is a picture of peace, and contentment, and affection. When the interest of the flock requires it, the shepherd makes known his wishes, and the dog is ever delighted to obey — ever ready to do his work with zeal and fidelity, and when done, lays himself down with evident and well expressed satisfaction, at his master's feet. The sheep obey the dog almost as readily as the dog obeys the shepherd, and seem to look to him as a protector. The shepherd loves his dog and his sheep, and the dog is equally attached to his master and his flock. The Almighty has chosen this beautiful scene to illustrate his love for his creatures, and his care over them. Modern customs and modern improvements may, in some respects, have changed the shepherd's life; but in our imagination, we must ever hold this picture of our early days as the POETRY of rural life.



THE SCOTCH SHEEP-DOG.

We might tell many facts illustrating the more than human sagacity of the shepherd's dog, but one or two will suffice, and we think will not fail to be interesting:

Mr. James Hogg, the Ettrick Shepherd, living in his early days among the sheep and their quadruped attendants, and an accurate observer of nature, as well as an exquisite poet, gives some anecdotes of the colley, (the Highland term for sheep dog,) with which the reader will not be displeased. "My dog, Sirrah," says he, in a letter to the Editor of Blackwood's Edinburgh Magazine, "was, beyond all comparison, the best dog I ever saw. He had a somewhat surly and unsocial temper, disdaining all flattery, and refusing to be caressed; but his attention to my commands and interest will never again be equalled by any of the canine race. When I first saw him a drover was leading him with a rope. He was both lean and hungry, and far from being a beautiful animal; for he was almost black, and had a grim face, striped with dark brown. I thought I perceived a sort of sullen intelligence in his countenance, notwithstanding his dejected and forlorn appearance, and I bought him. He was scarcely a year old, and knew so little of herding that he had never turned a sheep in his life; but, as soon as he discovered it was his duty to do so, and that it obliged me, I can never forget with what anxiety and eagerness he learned his different evolutions, and when I once made him understand a direction he never forgot or mistook it."

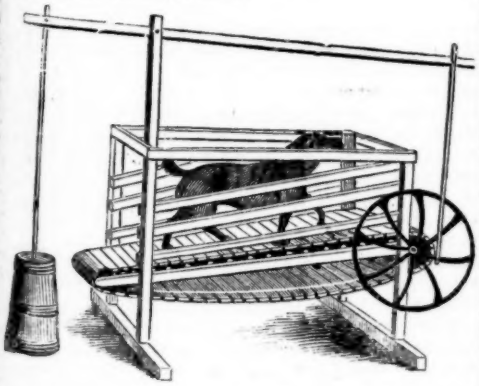
On one night, a large flock of lambs that were under the Ettrick Shepherd's care, frightened by something, scampered away in three different directions across the hills, in spite of all he could do to keep them together. "Sirrah," said the shepherd, "they 're a' awa!"

It was too dark for the dog and his master to see each other at any considerable distance, but Sirrah understood him, and set off after the fugitives. The night passed on, and Hogg and his assistant traversed every neighboring hill in anxious but fruitless search for the lambs; but he could hear nothing of them nor of the dog, and he was returning to his master with the doleful intelligence that he had lost all his lambs. "On our way home, however," says he, "we

discovered a lot of lambs at the bottom of a deep ravine called the Flesh Cleuch, and the indefatigable Sirrah standing in front of them, looking round for some relief, but still true to his charge. We concluded that it was one of the divisions which Sirrah had been unable to manage, until he came to that commanding situation. But what was our astonishment when we discovered that not one lamb of the flock was missing! How he had got all the divisions collected in the dark, is beyond my comprehension. The charge was left entirely to himself from midnight until the rising sun; and if all the shepherds in the forest had been there to have assisted him, they could not have effected it with greater promptitude. All that I can say is, that I never felt so grateful to any creature under the sun as I did to my honest Sirrah that morning."

The New York State Agricultural Society offer a premium on the best well trained dog, at the next State Fair, and our reference to the subject now will be in season.

Mr. A. L. Bingham of Vermont, passed through this city with a drove of sheep last winter, and had a fine dog with him as an assistant, who [the dog] honored us with a call. We certainly appreciate the compliment, as we have a great respect for the useful portion of the race. But we have no regard for the hosts of lazy, worthless curs, that infest our cities and villages, eating up food that many half-starved children would consider a luxury, and making the night hideous with their yelping. We have a perfect hatred of all such. We have no particular love, either, for those little watery-eyed fellows that seem to be so peculiarly the favorites of some ladies. We know of nothing more disgusting than to see a lady carrying in her arms a little cur, wiping its eyes with her handkerchief, or purchasing cake from the stores and feeding it. Better had she take care of some poor woman's child, if she must have a pet, and give her pennies to brighten the eye and gladden the heart of the first bare-footed, disconsolate looking child she might meet in the street. Or, indeed, if the pet must be something other than human, why not take a nice little grunter of a week or so old?—what could make a prettier pet to be led by a riband or carried in a lady's arms?



We are glad to learn that Horace L. Emery of Albany, has devised a plan for giving useful employment to dogs, and of making many now useless of some advantage on the farm or the dairy. It consists of a dog-power for churning, as seen in the above engraving. This is constructed on the endless chain principle, with India rubber bands, instead of links, and is said to work admirably—some fifty having already been sold and tested this season. The manufacturer states that it is easily operated by a dog, sheep, or goat, and can be applied to any size or kind of churn. Attached to a Thermometer Compressing Churn, it makes a very complete and perfect churning apparatus. The power can be instantly applied to any size of the ordinary dash churn.

GAME FOWLS.

Messrs. Editors:—I have been much pleased with your remarks on fowls; but I have a kind that I think you have never described. They [a pair] were sent to me by a brother in New Jersey, some two years ago, as Game fowls. I didn't prize them much at first, as I supposed the Game fowls were principally valued for their fighting qualities; and as I love peace, and can not bear to see suffering, even in the meanest creature, I found it difficult to overcome my prejudice against what I had supposed to be the bullies of the poultry yard. But my prejudice is somewhat giving way. They are a very neat, pretty fowl, and not half so quarrelsome as I had supposed them to be. They show a disposition to fight when quite small chickens; but with a little care I manage them so that they seldom injure each other. The hens lay about as many eggs as our common breed, and they are the best mothers I ever saw. The old hen will defy man or beast that attempts to interfere with her brood. Some of my neighbors think my fowls are too peaceable for Game. What is your opinion? J. W.—*Erie Co., July*, 1850.

We give at the head of this article a portrait of a Game cock, from Browne's American Poultry Yard, which our correspondent can compare with his fowls. We have no doubt, from J. W.'s description, that he has the Game fowls—perhaps not in their purity,—but they show strong characteristics of the breed.

Horticultural Department.

EDITED BY P. BARRY.

STRAWBERRIES.

In the vicinity of all our large towns, at least, the cultivation of the strawberry is destined to be a most important branch of horticulture. Around this city, the crop of the past season has been immense. The number of varieties grown, and grown in perfection, has never been equalled here before, and perhaps never excelled anywhere. At our June exhibition, upwards of twenty-five varieties were exhibited, including all the best known sorts.

Burr's New Pine maintains its supremacy in flavor, and is beside a most abundant bearer — indeed, we consider it, taking all together, the best strawberry.

The *Swainstone Seedling* is equal in flavor, and quite as large, but is a poor bearer, and can not be recommended for general cultivation.

Burr's Columbus and *Rival Hudson* are both highly productive and fair sized varieties, but somewhat acid. On this account, however, they are not at all objectional to many people.

Burr's Scarlet Melting proves a most prolific bearer. We saw a bed of this variety in Bissell & Hooker's grounds, surpassing in fruitfulness any we have seen this season; but the fruit is so tender that it can not be cultivated for market.

Burr's Old Seedling is a good, productive, staminate sort.

Hovey's Seedling holds its place as the largest, and the crops here this season, in all the gardens, have been quite satisfactory—much better than they have ever been before. The flavor is but middling.

Boston Pine is exceedingly prolific, and of fine size, but flavor poor.

Black Prince has yielded most abundant crops of large, fine looking fruit, but in all cases exceedingly insipid. We see it stated to be the same thing at Cincinnati. At the Buffalo exhibition we found the specimens shown to be no better. We have heretofore found it much better; but it certainly can not be relied upon in this respect.

The *Crimson Cone* is a most abundant bearer every year here, and in appearance one of the most beautiful of all—of a regular conical, pine apple shape, and rich, shining, crimson color; distinguishable at a glance, among all other sorts. The flavor is medium —about the same as the *Large Early Scarlet*. We consider this a valuable variety.

British Queen is a most superb fruit, and the plant extremely rich and luxuriant in foliage; but the yield is quite inconsiderable, and it deserves a place only in the amateur's collection.

Jenny's Seedling is very large, and the plant of a vigorous and luxuriant habit. We have not seen enough of it to speak decidedly of its bearing qualities, but should think it will produce very moderately, and the flavor is but medium, or hardly that.

Princess Alice Maude has produced a good crop of large, fine looking, but very insipid and worthless fruit.

Deptford Pine the same.

Prolific Hautbois is a large, conical, pale colored, sweet and musky fruit that many people like, and an immense bearer. The plant is quite distinct in its appearance, and when in blossom, is highly ornamental. We consider that its distinct peculiarities of growth, flavor, &c., added to its productiveness, render it well worthy of cultivation.

The *Large Early Scarlet* and the *Red and White Monthly Alpines* are unfailing good bearers, and the latter especially fine flavored. There is no other variety we would recommend in preference to the *Large Early Scarlet*, as a staminate to fertilize the pistillate varieties, as it not only possesses an abundance of pollen, but is itself an excellent fruit.

The *Bishop's Orange* is also a good bearer, and a good fruit.

We give these brief notes, made from a careful examination of the fruits in various plantations. The attention that has been given the strawberry culture here for a few years past, by several zealous and well informed cultivators, has not only awakened the community to the importance of the subject, but has really given them such information—such examples — as can not fail to convince them that to raise strawberries with success, requires but the plainest and simplest course of management. There is no difficulty now in selecting varieties that, with good soil and good culture, will yield an ample return.

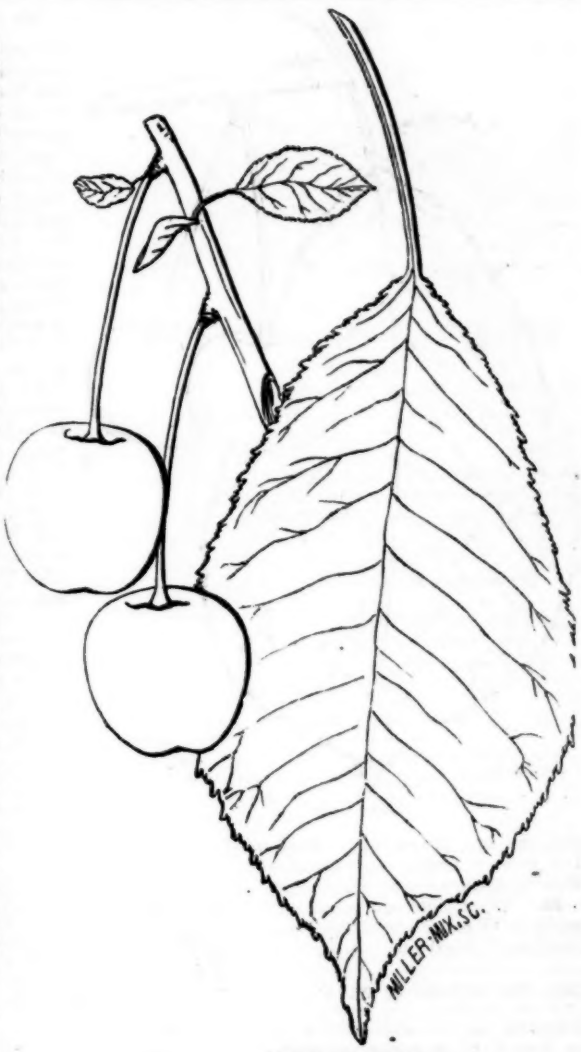
Good soil is a soil made deep by trenching or plowing. It should be at least a foot and a half deep, and so enriched with manures as to be in as good condition as a vegetable garden ought to be. *Good culture* consists in keeping the plants free from weeds and runners, and the ground mellow about the plants. *Showery weather* during this and next month, will be a good time for planting. The best way is in rows three feet apart, and the plants a foot apart in the rows. The preceding notes will be some guide to the inexperienced, in making selections. For a small collection, giving a reasonable variety, we can not do wrong, we think, in pointing out the following: *Staminates* — Large Early Scarlet, Boston Pine, Burr's Seedling, Swainstone Seedling. *Pistillates* — Burr's New Pine, Hovey's Seedling, Crimson Cone, Rival Hudson, Black Prince. And in addition to these, the *Prolific Hautbois* and the *Alpines*; both having perfect flowers, and not mixing with other varieties. For a very small collection, the two first of each staminate and pistillate. The *Alpines* we would cultivate, if none else, on account of their bearing so long and possessing such delicious flavor. But, few will agree with us, on account of their small size.

A correspondent writes us: "I have made up my mind this season, from my own observation and experience, that *Burr's New Pine Early Scarlet*, and *Hovey's Seedling*, are the three varieties for those who wish to cultivate but three sorts."

DUKE AND MORELLO CHERRIES.

These classes of cherries, as a general thing, are not cultivated in this country to any considerable extent The *May Duke* and *Belle de Choisy* are about the only sorts that seem to be considered worthy of cultivation, judging from the demand. The taste of our planters seems to run almost exclusively for rapid growers and large, sweet fruit. A large portion of the cherry trees that are planted through the country, are placed in door-yards, where they are made to serve the double purpose of shade and fruit trees. For such purposes, the rapid growing sorts, such as the *Hearts* and *Bigarreaus*, are alone suitable.

We apprehend, however, that in a short time these hardy sorts will receive much more attention, and be planted to a much greater extent than at present. Throughout nearly all the western and southwestern States, the free growers, or Heart cherries, are quite short lived; they are too delicate — their wood is too soft to endure the vicissitudes of the climate and seasons. So it is in the northern portions of this State, the eastern States, and Canada. The free growing cherries are too tender; and the consequence is, that in traveling through these regions, you will find nothing but the common *red*, or *pie* cherry; which is very late, and only fit for cooking. If we ask why the fine varieties are not cultivated, we are told that they will not endure the climate — Mr. So-and-so has tried them, without success. It is true that this *pie* cherry, as it is called, will bear the most abundant crops in all seasons, where such as the *Black Tartarian* or *Elton* could not survive a single season. But we must tell the people of these localities, that there are really fine sorts, to our taste superior even to the *Black Tartarian*, equally as hardy as the common red. Of such are the *May Duke*, *Belle de Choisy*, the *Carnation*, the *Belle Magnifique*, the *Morello*, and many others we might name. For small garden trees, these slow growers are much better adapted than the others — much easier managed; they are naturally more compact, may be planted close, and are easily protected from birds or insects. The two varieties noticed below, of recent introduction, may be added to the finest of these hardy, slow growing sorts.



REINE HORTENSE.

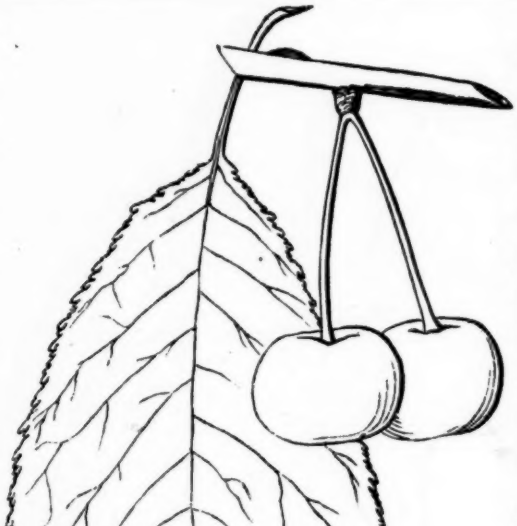
THE REINE HORTENSE CHERRY.

Synonyms — Monstreuse de Bavay, Lemercier, Belle de Bavay, &c.

This is an excellent French cherry of the Duke class, imported by us some three or four years ago. Mr. Bavay says it was found at his old residence at Vilvorde, in Belgium, and introduced by him in 1826, under the name of "*Monstreuse de Bavay.*" The "*Bon Jardinier*" states that it was introduced in 1838, as *Reine Hortense*, by Mr. La Rose, a nurseryman of Neuilly, in France. The *Lemercier*, which we have imported, has also proved identical with it. The fruit is large, long, heart shaped, and bright red at maturity. Stalk an inch and a half to two inches long, rather slender. Flesh tender, juicy, sweet, and rich. The tree is a vigorous and handsome grower of the kind, resembling the *May Duke*, and it bears early. It is one of the very best for dwarfs or pyramids, that we know of, in the whole list cultivated. It appears to us that, if left entirely to themselves, they would make handsome pyramids, if worked on the mahaleb stock. Mr. Rivers, and indeed all who have tested it, pronounce it a *first rate variety*. We recommend it especially to those who are desirous of procuring small, garden cherry trees, that are easily managed.

DONNA MARIA CHERRY.

This is another French variety of recent introduction. Fruit medium size, round, flattened at both ends, light red until mature, when it is quite dark. Flesh soft, juicy, and acid; fit only for confectionary



DONNA MARIA.

purposes and preserving. Ripe middle of July. The tree is similar in growth and wood to the Morello—makes a nice prolific bush on the Mahaleb stock. We should not recommend it unless for a pretty large collection of this class of fruits, as it is inferior to several others ripening at the same time.

THE FIRE BLIGHT IN PEAR, APPLE, AND QUINCE.

A FRIEND has favored us with a copy of the "Cayuga New Era," in which we find a communication stating that "it has been ascertained to a certainty, by a close observation and actual discovery, that what is usually termed the '*fire blight*' in these kind of trees, is caused by a very small white worm, about a quarter of an inch in length and not larger than a cambric needle. This, at least, is about the size of their growth at the present time. It commences at the tip ends of the branches and proceeds, generally, on one side of them only, between the outer bark and the wood, till, in the course of the season, it passes quite through the whole extent of the tree into the earth. The smaller branches soon wither and die, and the larger ones and the body of the tree become so despoiled of their bark as to fail sooner or later by decay, from exposure of the wood to the weather. The only effectual remedy is to cut off the tips of the branches as soon as any dry leaves appear."

We can only say that we have strong doubts about the correctness of the discovery. The blight seldom affects more than the ends of apple and quince shoots.

DR. KIRTLAND'S CHERRIES.—CLEVELAND.

DURING a recent visit to Cleveland, we had the pleasure of spending a few hours with the Doctor and Mr. ELLIOTT, among the seedling cherries. It was on the 4th of July, and many were out of season; still, we found much that was new and interesting. To examine all the seedling cherries which the Doctor has already in bearing, would require a whole day. We observed *Kirtland's May* and *Rockport Biggareau* very fine; No. 10, a variety not yet named, rather better than any—a superb and delicious fruit; several black seedlings, from their season of maturity, texture, and flavor, promise to be valuable. The Doctor's grounds show that he is prosecuting his favorite pursuits with increased ardor; they are greatly improved since we last visited them, three years ago. We noted a great number of interesting and important experiments going forward, in hybridizing, manuring, &c., the results of which can not fail to subserve the interests of fruit culture in that region and elsewhere.

We have to thank Mr. ELLIOTT for his company and kind attention. We found him in his new house, (for the design of which he was awarded the premium of our State Society,) his office filled with cherries, of which he was making notes and comparisons that we shall one day hear from, no doubt.

Cleveland is a charming city. In tasteful and beautiful dwellings and gardens, she eclipses any city of the same size we know of. The Horticultural Society holds weekly exhibitions during all the fruit and flower season, and is quite well attended and doing great good. No premiums are awarded, and therefore they create no jealousy, as among certain small hearted people elsewhere. We suggest this mode to young societies with small means. Dispense *totally* with premiums; they are only "bones of contention."

We forgot to add, in speaking of Dr. KIRTLAND'S cherries, that we have had the *Cleveland Biggareau* and *Rockport* bear here, and they fully meet our expectations. No. 10 has also borne, and is by far the best cherry. All who have seen it here or at Cleveland, pronounce it one of the best, if not *the best* of all.

CHERRIES.

THE cherry crop in this vicinity has been remarkably abundant. We have noticed a remarkable partiality among people generally, for black cherries. The dealers say that they can sell a bushell of *Black Tartarians* at two shillings per quart, before they could sell a quart of such as *Belle de Choisey*, or *Downer's*, or any other light cherry, at six pence. The bulk of our city people know so little about cherries, that they imagine all *red* cherries to be unripe and sour.

BURR'S SEEDLING CHERRY.—We are indebted to ZERA BURR, Esq., of Perrinton, for fine specimens of this variety, on the branch—both beautiful and excellent. We have had it in bearing on our own grounds, and it even exceeds our expectations. It is not surpassed in all fine qualities of growth, bearing, and delicacy of flavor, by any of the light colored, tender cherries. It is truly an acquisition. Mr. BURR exhibited an early black cherry, that promises well.

HORTICULTURAL EXHIBITIONS.

The Society of the Genesee Valley held its first exhibition of the season on the 26th of June. Strawberries and roses were the great leading articles that absorbed all attention. The collections of strawberries comprised over twenty-five varieties, all well grown and fine of the sorts. We have never seen an exhibition of the kind to equal it. In roses the exhibition was equally fine — over two hundred varieties were shown, many rare and new, and including about fifty varieties of the Hybrid Perpetuals. Beside the roses, there was a fair display of other flowers of the season, boquets, &c., making in all a very pretty exhibition, highly creditable to those at least who took a part in it.

BUFFALO HORTICULTURAL SOCIETY.

This Society held its first exhibition of the season at McArthur's Garden, on the 2d of July, Lewis Eaton, Esq., President. We spent an hour in the room, and was delighted as well with the active and persevering spirit of the officers and a few members of the Society, as by the display of articles on the tables. There was a very creditable display of strawberries and flowers, arranged in the best taste. Mr. Tyler and Mr. Westfall, florists, contributed largely to the interest of the show, with their collections of fine pot plants. Mr. Westfall had some charming spotted seedling calceolaries, the greatest novelty in the room.

The ladies had so intermingled the dishes of strawberries with the boquets, for the purpose of effect, that we found it difficult to make such note of them as we wished. On such occasions the fruits should always be arranged by themselves, to facilitate that examination and comparison which it is the object of the Society to afford.

ALBANY AND RENSSELAER HORT. SOCIETY.

This Society has already held three exhibitions this season — the first, June 18; the second, June 27; and the third, July 10. We have not seen a report of the first, but the other two have been kindly sent us by B. P. Johnson, Esq.

At the meeting of the 25th June there was a fine show of strawberries; the report says it embraced "nearly every variety considered by pomologists as worthy of cultivation." Luther Tucker, Esq., presented twenty-three varieties. A premium was awarded to *Burr's New Pine* as the *best and finest flavored variety*, and to *Hovey's Seedling* as the second best.

At the meeting of July 10th, cherries, gooseberries, and currants, were the main objects. *Black Tartarian* was awarded the premium as the best cherry, *Sheba Queen* the best gooseberry, *Knight's Sweet Red* the best currant, *Fastolff* the best raspberry. Of flowers there appears to have been a fine display at all the meetings. At the last the following gentlemen were chosen delegates to represent the Society in the American Pomological Congress, the next session of which is to convene in Cincinnati in September next, viz:

From the county of Albany, Joel Rathbone, Dr. Herman Wendell, B. P. Johnson, Ezra P. Prentice, James Wilson, Sanford Howard, and E. H. St. John. From the county of Rensselaer, V. P. Douw, D. Thomas Vail, B. B. Kirtlandt, S. E. Warren, Amos Briggs, William Newcomb, and William Buswell.

OSWEGO HORTICULTURAL SOCIETY.

An exhibition was given by this Society on the 10th of June. We should judge from the reports of the Committees, that the display was quite creditable. A large variety of Cherries were shown, as well as Gooseberries Currants, and Strawberries. The premiums are awarded to individuals without stating which variety of fruit entitled the exhibitor to the premium. This destroys one of the benefits of horticultural exhibitions, and deprives us of the opinions of our Oswego friends of the comparative value of the different varieties. The display of flowers must have been very fine. We count over forty contributors of flowers, mostly ladies.

NIAGARA COUNTY HORTICULTURAL SOCIETY.

We note the organization of this neighboring Society with much pleasure. Niagara is one of the finest counties in the State for horticultural purposes, and this Society, if liberally sustained, can not fail to be eminently useful in diffusing knowledge and taste. Its first exhibition, on the 7th of July, has passed off, according to all accounts, much to its credit and to the gratification of those who witnessed it. N. B. Rogers, Esq., is the President.

AMERICAN POMOLOGICAL CONGRESS.

We solicit the attention of all Societies and individuals interested in pomology, to the following circular, issued by the officers of the Pomological Congress:

In conformity with the Resolutions passed at the last session of this National Institution, its next meeting will be held in the city of Cincinnati, Ohio, on the 11th, 12th, and 13th days of September next, A. D. 1850.

The Ohio State Board of Agriculture, and the Cincinnati Horticultural Society will also hold their annual exhibitions at the same time and place, and the latter have generously offered to provide for the accommodation of the Congress.

All *Agricultural*, *Horticultural*, *Pomological*, and *kindred societies* in the United States and the Canadas, are hereby respectfully invited to send such number of Delegates as they may deem expedient.

In order to facilitate the objects of this Association, to promote Pomology and the sciences on which it depends, to collect and diffuse a knowledge of researches and discoveries in this important department, delegates are requested to bring with them specimens of the fruits of their respective districts, with lists of the same, and also papers descriptive of their art of cultivation, of diseases and insects injurious to vegetation, of remedies for the same, and whatever will add to the interest and utility of the Convention.

Packages of Fruit not accompanied by their proprietors, may be addressed to the care of Messrs. John F. Dair & Co., Lower Market street, Cincinnati, Ohio. These should be very distinctly marked, "For the American Pomological Congress."

All Societies to be represented in this Congress, will please forward certificates of the election of their several Delegations, to J. B. Russell, Esq., Corresponding Secretary of the Cincinnati Horticultural Society. Delegates will also report themselves at the Burnet House, on the morning of the 11th, where a Committee will be in attendance to take charge of their Fruits, and whence the Congress will proceed to the hall assigned for its meetings.

MARSALL P. WILDER, *President*.

S. B. Parsons,
P. Barry,
Geo. W. Deacon,
} *Secretaries*.

July 4, 1850.

New Potatoes.—Fine ones were exibited in the Horticultural Society's show-case in Rochester, on the 13th of July, by John Donnellan, of Hanford's Landing.

ANSWERS TO CORRESPONDENTS.

P. Barry—*Dear Sir:*—Being an admirer of the Spiræa family of shrubs, I take an interest in every word said in their praise. I am confident few genuses of hardy plants add more to the sublimity of our lawns, shrubberies, and borders. I am familiar with all the most esteemed species, and with *lanceolata*, of which you gave an engraving in the July number of the Farmer. I also know *ulmifolia* as an herbaceous perennial variety, the description of which corresponds with yours, except being an herbaceous perennial instead of a *shrub*. I will describe the herbaceous *ulmifolia*, and give you the year of introduction :—Color of flower, white ; time of flowering, 6th month ; native of Caniola ; introduced the year 1790. I have searched all botanical works of the latest dates, and got up by the first authors, for a shrubby *Spiræa ulmifolia*, and can not find anything said or quoted of such a shrub. Please inform me, through the pages you edit, if the *ulmifolia* of which you gave an engraving. is new, and where it came from, and when. I am desirous of knowing, having nearly all the most desirable *Spiræas* under cultivation, and will have the *ulmifolia* you describe, if *distinct*. C. J. Ryan. —*Rochester and Charlotte Plank Road Nurseries, July*, 1850.

We are quite astonished at you, friend Ryan. Why didn't you search among other "botanical works of the latest date," Loudon's *Encyclopedia of Plants*, his "*Arboretum Brittanicum*," or the *Bon Jardinier*; any, or all of them, will tell you about the *Spiræa ulmifolia*. But, pray, in what work have you seen the account of the herbaceous species ? or have you seen the plant ?

Mr. Editor :—In reading your excellent paper, I found a recommendation to raise dwarf fruit trees, especially pears. Do you dwarf apple trees also ? If so, will you please give some of your friends in a new country, where quince tress and fruit of all kinds are scarce, some information as to the manner of obtaining them ? In so doing, you will very much oblige a number of the readers of your paper. D. Woods.—*Woods' Corners, Hills. Co., Mich., June*, 1850.

The quince stocks suitable for dwarfing the pear on, can be obtained from the nurseries. The apple, for *pyramids*, is worked on a species of apple called the *Doucain;* and for *dwarfs*, on the *Paradise:* both of which can be procured at nurseries where trees of this character are grown. These stocks are mostly imported from Europe, by our nurserymen ; but when a stock is once obtained, they may be increased by layering.

(A Young Subscriber.) The time for grafting is March and April. You can bud through August and part of September. You can dwarf the *apple* by grafting or budding on the *Paradise* stock, the *pear* on the *quince* stock, the *cherry* on the *mahaleb* stock, the *apricot* and *peach* on a slow growing *plum* stock. Clear fruit trees from moss, as recommended by Mr. Stone, in this paper — lice, by washing with a solution of soft soap and tobacco ; either dip the ends of the shoots mostly affected in the wash, or throw it on in the morning or evening, with a syringe. The *birch* can not be used as a stock for fruit trees. Use free stocks for standards and those above named for dwarfs. Cut out the black spots on apple trees, to the sound wood and bark, and the parts will soon heal over at this season.

(A Young Gardener.) To destroy the aphis, or green louse — pour boiling water on tobacco ; when the strength of the tobacco is extracted, add soft soap, and treat your trees as recommended in the above article The black slug that is doing your pear and cherry trees so much injury, you might have very easily destroyed by sprinkling dry ashes or lime on them.

MOSS AND ROUGH BARK ON TREES

All are perhaps ready to agree with me, that moss and rough bark are heavy drawbacks on the apple tree. We will first consider the cause, second the effect, and then the remedy. The center of vitality in the stem or trunk of a tree, is in the line of demarkation between the bark and wood ; and it recedes from that point both to the center of the wood and to the surface of the bark, until in old trees dead wood can be found in the center, and dead bark on the surface. By a law of nature, when life ceases to hold organized matter, dissolution and decay follows. It then becomes food for other organizations, and thus never ending changes are going on. Moss is a kind of parasite that grows from the dead bark, and is supported by the decayed matter of the dead bark and also by drafts of sap from the live bark. Thus the moss steals, as it were the *life blood* of the tree, and it loses its healthy appearance, and its fruit is lessened both in quality and quantity. Moss and rough bark are also places of deposit for insects, in which their eggs are deposited. They also hold water for days after rainy weather, and by its gradual evaporation keep the temperature of the tree too low for a cold climate.

As a remedy, use a scraper first, and then, on young trees whose heads are not sufficiently developed to shade the stem or trunk, use whitewash, which will reflect the heat and relieve it from the extreme heat of a summer sun ; but on large trees, soad suds, ashes and water, or lye, is preferable. In washing young trees, lye should not be too strong; otherwise, unless it is washed off or put on immediately before a brisk shower, there is danger of injuring them.

In order that these hints may be put in practice, and that good may be the sequel, I will cite the reader to his own observation. Show me a mossy, rough barked orchard, that yields a fair return of good fruit, and I will show you a *phenomenon*. Archibald Stone.—*Hinmanville, April*, 1850.

A CURIOSITY

Messrs. Editors :—As I was gathering apples in the fall of 1848, I came to a large Greening tree, and the next tree south of it was a Russet. I put my ladder against a large limb of the Greening, that projected toward the Russet, and ascended, and found a branch containing eight or ten Greenings, large and fair, and one apple about two-thirds as large, covered with russet. I cut the branch off and showed it to two men who were present. Had it fallen to the ground before discovered, every one would have said it grew upon the other tree. I did not taste it, as one present said he would carry it home as a curiosity. If it was not fertilized by the other tree, what was the cause ? I saw several others that had round spots of russet, some as large as a ten cent piece. A. W.—*Marcellus, N. Y.*, 1850.

Were it not for the confidence with which A. W. makes his statement, we should be inclined to think the russet apple came from the russet tree, or that this apple had only the russety appearance common to a greening grown in the sun..—Ed.

Remove the surface of the ground before watering trees or plants, then water thoroughly, and when the water has disappeared, return the earth.

Ladies' Department.

We really don't know what we should do without our Ladies' Department. It is our flower garden—a summer-house in a shady nook. Here we retire from our cares and labors to hold converse with the fairest and best, for our mutual benefit Here we are confined by no arbitrary rules—to no particular subject. We gossip about matters and things in general, always, however, aiming to unite pleasure and profit. Within the border of this page we allow no critics or grumblers to enter; they may look in, if they choose, and admire our fine gardens, inhale the fragrance of our flowers, listen to our conversation about equestrian excursions at sun-rise, but they can go no farther. It is sacred to ourselves and the ladies. We always give the ladies an opportunity to talk first, having something to say ourselves to fill up time, and make things pass off pleasantly. "Mignonette" has a word to say on Early Rising:

Messrs. Editors:—Will you be so kind as to allow me the privilege of saying a few words about early rising, to the young ladies who read your columns. From my own experience I consider early rising to be almost a virtue. Nearly every person of remarkable longevity on record has testified to the habitual observance of this practice; and it was no doubt designed by God himself, as one of the preventives of disease and mortality. Then there is so much pleasure to be enjoyed in the morning—pleasure of the truest kind, peculiar to this season of the day, whether we employ our time either in bodily or mental recreation. During these beautiful summer mornings, while the leaves are glistening with dew, and the flowers are emitting their delicious fragrance, and the sweet little birds are making the air vocal with their delightful music, the very consciousness of life seems a luxury. I have a cousin, Emma, who had formerly not been guilty of rising till the sun had made quite a respectable angle with the horizon. After some teasing, I persuaded her to rise one morning at four o'clock, and take a jaunt upon horseback. At a quarter past four we started up Main street. It was as lovely a morning as I ever beheld.

"From fleecy clouds of pearly hue
Had dropt a short but balmy shower
That hung like gems of morning dew
On ev'ry tree and ev'ry flower."

The air seemed to be actually filled with music, issuing from little tiny throats; the new mown clover sent up a sweet fragrance like incense to the skies—indeed, it seemed as if the whole earth was one magnificent temple, where God's creation were praising him for his beneficence. "Well, really, this is the most lovely ride I ever enjoyed," cried Emma, her eyes as bright as two dimonds, and her cheeks glowing from exercise. "I am sure, now I have found out how to enjoy so much pleasure, Prince will have to trot out oftener than usual." I will say here that this resolution has been kept pretty well ever since. We trotted along by Clover-street seminary, our tongues in the mean time keeping up quite a lively rattle about this bird and that, this pretty wild flower and yonder towering tree, till we came to the road that leads to the city by Monroe street, where we turned about and began to beat a retreat. Before this time people were moving about quite briskly—milk-maids carrying into the house pails almost overflowing with their snow-white treasure—boys were turning the grindstones while the men held the scythes, sharpening them before commencing their daily toil—children feeding the hens and chickens,—and the whole together forming a peaceful, picturesque scene, worthy of a painter's genius or a poet's verse. Thus we jaunted along until we reached the city's limits, passing along Monroe street, and just as we turned into Clinton street the bell tolled seven from St. Paul's tower, waking many, I have no doubt, from their protracted slumbers, who had thus lost the loveliest portion of the day. It has been said that "man is a bundle of habits," and we have it in our own power to establish such habits as shall promote our happiness and well being, or such as shall tend to sorrow and disease. Youug persons may so accustom themselves to early rising as to cause it to become a practice which they will follow down to the latest period of their life. Mignonette.—*Rochester, July*, 1850.

Early rising would destroy about one-half the ills that flesh is heir to, and exercise in the open air nearly the other half. Both are connected. Many are so situated, that unless they rise early they have no opportunity for out-door exercise. In the summer season the noon-day sun is oppressive, and often injurious to those unused to bear the intensity of its direct rays. The birds then retire to the shady grove—they are not in your garden to welcome you with their songs. We rather think Mignonette and Emma had a good appetite for their breakfast. Too many get up at seven or eight o'clock, take breakfast almost immediately, and then wonder that they have no appetite.

There are some foolish men in the world, that prize women in proportion to their uselessness and ignorance. The less they know and the less they do—the nearer they arrive at the perfection of a doll—the better they are pleased. If a woman reads useful books, cultivates her mind, reasons and thinks for herself, she is a *blue-stocking*; if she takes an interest in the cultivation of fruits and flowers, and the products of the farm, the orchard, and the garden generally, she is unwomanly. But the number of such men is growing less, and their good or bad opinion was never worth a straw. We rejoice that there are hosts of women not afraid or ashamed to be useful. We have the names of many such on our books. The following is an extract of a letter from one in Michigan:

I will here say, as an apology for not enclosing subscription money as soon as it may be expected, that I receive but very little money on subscriptions: but being under the necessity of supplying my domestic affairs, indoors and out, I can get chopping or hoeing done in payment for the Farmer, and thus get subscribers when, if I required them to pay the money, I could not. R. E. P.

Our fair friend need make no excuses, as we feel proud of having her name on our books. We know of more than one lady taking active measures to increase the circulation of our journal; but taking pay for the Farmer in "hoeing" and "chopping," and sending us the cash, is something we were hardly expecting, and entitles the lady to our warmest thanks. It is facts like these, almost daily occurring, that render our duty pleasant. We have twen[illegible] thousand names on our books, that for intelligence in short, for all that makes man great—we would place against any twenty thousand that could be selected in the universe. As we pass over their names month after month, and have communication with them through our paper and otherwise, they become associated with us as friends and acquaintances, from whom we hope never to part.

The following, though delayed a little, would never be out of season. It is just such a production as we might expect to originate at *Floral Cottage*, from one surrounded by "blossoming wreaths":

Messrs. Editors:—Summer has come. June, delightful June, with her blossoming wreath, is now the queen of the season; and her regal step, as she advances to resume her empire, is greeted by all. Walking out this morning in our "flower garden," my mind involuntarily recurred to your pithy sentiments, relative to your "*Floral Rake*;" and I thought if you, in your liberality, would only favor me with one of those valuable appendages to a flower garden, I could certainly cultivate flowers with more ease, and to better advantage. Should you favor me with one of those rakes, I will esteem it as a token of generous friendship, to be prized by me as an appendage to my garden. I will use it with proper "intellectual" care, and pledge you a tasteful boquet in return. A Farmer's Wife.—*Floral Cottage, N. Y., June*, 1850.

Youths' Department.

DEATH OF THE PRESIDENT.

"I may have erred—but I have endeavored to do my duty."

It is not our duty to talk of politics or presidents. We have our sphere — to enlighten the minds of the agriculturists of the country — to teach them their high destiny — to teach them to love their profession as one of honor, a profession in which may be employed all the intellect, all the knowledge, that God has given or man acquired, — to teach this particularly to the young, too many of whom have been inclined to look with contempt upon what they call the "plodding" life of a farmer, and to rush into our cities, there to meet with difficulties they had not dreamed of, and temptations they are unprepared to meet. We endeavor to enforce the idea that it is fully as honorable—as intellectual—to cultivate the soil, and cause it to bring forth abundantly, as to measure calico, sell molasses, peddle pills and calomel, or superintend the quarrels and law suits of others. This we believe to be *our duty*.

But, the death of President Taylor, which has cast a gloom over our country, and caused even those unused to serious thought to think solemnly for once, furnishes a not unfitting occasion to say a word to the youth, on the proper aim of man. It is contained in the last words of our lamented President, at the head of this article — "I have endeavored to do my duty." It is not a lofty position, the posession of great power, the applaudits of millions, or the flattery of friends, that makes man *great;* but the *honest performance of duty*, in the sphere in which he moves, no matter how elevated or how humble that sphere. This it may be difficult for us now fully to realize; but when we stand, as did President Taylor when he uttered these words, upon the edge of an opening grave — the last spark of life almost extinguished—the last struggle almost over—we shall see the world, its duties, and objects, in a proper light — in a light reflected from the invisible world. If at that trying moment we derive consolation from a review of our past lives, it will not be from wealth or honors—not from great battles fought or glorious victories won,—but from the fact that we have faithfully and untiringly endeavored to do our duty.

THE ANALOGY BETWEEN ANIMAL AND VEGETABLE LIFE.—No. 2.

Carbonic acid, ammonia, and *water,* yield the elements from which are formed all the *organic* parts in the structure both of animals and plants. Certain *inorganic,* or *mineral* substances, are also required in both cases; as lime, to give solidity to the bones of an ox; and silica, or flint, to the stem of wheat. The process of digestion in an animal is analogous to that of appropriation and nourishment in a plant. To draw the comparison still closer and fix it in the mind, let us glance briefly at the organic substances found in vegetables, as *albumen, gum, sugar, gluten, woody fibre, fixed and volatile oils,* &c., and their corresponding substances in the animal economy:

1st. *Albumen,* which exists in nearly a pure form in the white of an egg, is found also in the almond and in the kernel of nuts. The juice of a West India plant *(Hibiscus esculentis)* contains liquid albumen in such quantities, that it is used as a substitute for the white of eggs in clarifying the juice of the sugar-cane. This substance is common in both animal and vegetable kingdoms, and may easily be distinguished by its property of coagulating, or becoming hard and permanently solid, by the action of moderate heat or of acids. It forms a constituent of the serum of blood, of several of the animal secretions, and, in a solid form, of some of the organized structure of the body. Its composition, from whatever source it is obtained, is carbon 52, hydrogen 7, oxygen 23, and nitrogen 15 parts, in every 100.

2d. Vegetable *gum* is analogous to animal *mucus.* Gum is the substance which exudes from certain trees. It appears in the form of a thick fluid, but soon hardens in the air, when it becomes nearly white and somewhat brittle. Its characteristic properties are, easy solubility in water and insolubility in alcohol. Its composition is, carbon 43, oxygen 51, hydrogen 6, in 100 parts; and all varieties are nutritious as food. *Mucus,* or the animal counterpart of gum, is a secretion found on the surface of the lining membrane of the intestines, and possesses the same characteristics and nearly the same composition. It may be obtained by evaporating the saliva to dryness, and is then similar to gum-arabic in appearance, but rather more opaque. The fluid found in the shell of an oyster, when evaporated, produces this substance.

3d. *Sugar* is essentially the same, whether derived from the maple tree, the cane, the beet, or the milk of animals. In the last named substance it constitutes about one-third of the whole solid matter. Its composition is nearly identical with that of gum.

4th. Let us compare vegetable *gluten* with animal *gelatin.* Gluten is one of the most nutritious of vegetable substances; and wheat owes its superiority to all other grains, in a great degree, to its containing this substance in larger proportion. It has a gray color, is elastic, ductile, and tenacious; soon decomposing when kept in contact with air, and emitting an offensive odor, similar to that of putrid animal matter. It is readily obtained from wheat or flour, through the agency of cold water and pressing out the starch. Gelatin is an animal substance nearly identical with gluten, which enters largely into the composition of bones, horns, hoofs, &c. Isinglass and glue are forms of gelatin; and when the lime is dissolved out of bones by means of sulphuric acid, this substance remains in nearly a pure state.

5th. *Woody fibre* is the substance remaining after a plant has been exhausted of all its soluble materials, by repeated boilings in water and alcohol. It resembles the animal substance called *fibrin,* which is the principal constituent of the muscular, red, or fleshy part of animals, and of blood. Fibrin is white and inodorus; and when dry, is hard, brittle, and slightly transparent. It may be procured by digesting small pieces of lean meat in repeated portions of water.

6th. The *fixed oils,* whether of animal or vegetable origin, have essentially the same composition.

The above are a few of the many organic substances, having a striking similarity in composition and properties, which are found in both the animal and vegetable kingdoms. The analogy might be carried to any extent, were it necessary to establish the identity of matter, the elements of which are chiefly furnished by air and water, and are so arranged, or *organized,* as to form in the one case the root, sap vessels, bark, and leaves, of a tree; and in another the bones, blood vessels, skin, lungs, and muscles, of a man.

F.

Editor's Table

We have many more articles on hand from correspondents than we can at present find room for. Our friends, however, must not be impatient, as we shall give them a place as soon and as fast as possible.

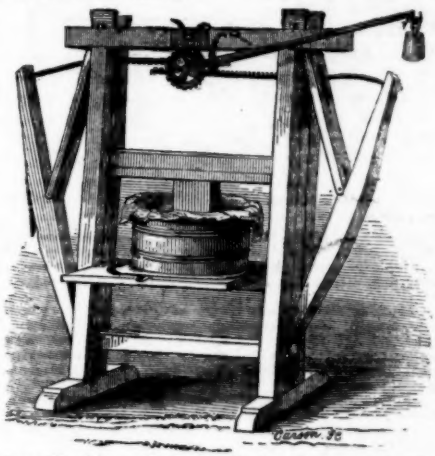
Mr. Sheafe's Sale of Short-Horns.—This stock is advertised on page 199 of this number, and also on this page, and the sale is to take place on Thursday, the 29th day of August. Mr. Sheafe has bred his stock with reference to their milking qualities. The editor of the Agriculturist says: "Cream Pot, one of the founders of this herd, gave, in her prime, and in the best of the season, 36 quarts of milk per day, which made at the rate of 18 lbs. 6 oz. of butter per week. Lucilla gave 29 quarts per day, and made 15 lbs. 3 oz. of butter per week. Celeste, Venus, Beauty, Phœbe, and Dahlia, gave from 25 to 33 quarts of milk per day; and their descendants, now principally forming the herd, are nearly as promising. The heifers and cows, from three years old and up, now give from 15 to 27 quarts of milk per day, in the best of their season. These quantities have not been guessed at, but were made subject to actual measurement in our presence." Mr. Allen, of New York, who has charge of the sale, in the absence of Mr. Sheafe, has furnished us in a letter with the following particulars, which will be interesting to many of our readers:

The stock will be tied up and arranged according to the numbers in the Catalogue the day before the sale, and on sale's day. Thus, every one will be able to examine them to their entire satisfaction. When the sale commences an ample ring will be staked out and roped. Into this circle each animal will be brought when it is put up for sale and walked round for inspection. As all persons will be kept outside of the ropes, this again will give every one present an opportunity of close examination. If there be any unsoundness or vice in any animal, on sale's day the public will be informed of it. It is my intention that every thing shall be conducted in the most honorable manner; and in doing this, I am happy to add, I shall be only carrying out the express wishes of the owner of the herd.

New Hamburgh is on the east side of the Hudson River, eight miles above Newburgh, and about the same distance below Poughkeepsie. It can be reached by railroad from opposite the former place, or directly from the latter, in fifteen minutes. It is only two or three hours distant from New York by rail-road, and four to five hours from Albany by steamboat and railroad. Several trips per day are made to each at from 85 cts. to $1.

Improved Implements.—Nothing is of more importance to the farmer, than a knowledge of the improvements constantly making in implements, by which his labor is lessened, and his work better done. We present a few of the latest.

Grain Binder's Wheel Rake.—The above cut represents a labor and time-saving implement, used extensively in several States where it has been introduced. It is light, weighing about fifteen pounds. As represented in the engraving, the binder takes the handles and pushes it before him, with the points of the teeth or fingers close upon the ground, and when he has gathered on the fingers a sufficient quantity for binding into a sheaf, he places his foot upon the foot piece (*a.*) and by a slight pressure, and by letting go the handles, the fingers and grain are raised above the stubble, when it is readily bound, the binder being required to stoop much less than in the old way of reaching to the ground. When the sheaf is bound and thrown aside, the foot is removed from the foot-piece, (*a.*) the teeth drop down, and the handles rise ready for the next operation. The wheels are about eighteen inches high, and it is easily pushed before the binder. The width between the wheels is sufficient for the largest grain. It is for sale at Emery & Co.'s Albany. Price from 3 to 4 dollars.



Kendall's Cheese Press.—The above cut represents an approved Cheese Press for which the New York State Ag. Society awarded the first premium in 1847, and is, we learn, generally used in the counties of Oneida, Herkimer, &c., in this State. Its construction is a combination of levers working together, and so arranged as to give any desired amount of pressure. A suspended weight of twenty pounds being sufficient to give a pressure of ten tons. They can be had of Emery & Co., of Albany. Price $15.

Milking Machine.—The papers at the east are talking about a Gutta Percha Milking Machine, which is applied to the cow's teat without pain or injury to the animal, and causes the milk to flow in a steady stream, until all is drawn from the bag.

State Fairs for 1850.—State Fairs for the present year will be held as follows:

New York—at Albany, Sept. 3, 4, 5, and 6.
Maryland—at Baltimore, Oct. 23, 24, and 25.
Ohio—at Cincinnati, Sept. 11, 12, and 13.
Michigan—at Ann Arbor, Sept. 25, 26, and 27.
New Hampshire—first week in October.
Upper Canada—at Niagara, Sept. 18, 19, 20.

Agricultural and Horticultural Implements, and Field and Garden Seeds.

UPWARDS of *one hundred* kinds of Plows, and a corresponding variety of all other implements for the farmer, planter, and gardner; embracing the largest and most complete assortment to be found in the United States. Also, Field and Garden Seeds—a large and varied assortment. A. B. ALLEN & CO.,
August, 1850. [8-tf-o] 189 and 191 Water st., New York.

Mr. Sheafe's Sale of Short-Horn Stock.

THE following are the conditions of the sale:—In order to save time in bidding, and ensure despatch, the cows and heifers will be put up at a price varying from $25 to $100 each, dependent upon the animal. If bid off at the price named when put up, or anything above, it will then be the property of the person bidding, otherwise it will be considered still the property of Mr. Sheafe. The bull calves will be put up at $25 each, and Exeter at $300. The sheep and lambs will be put up at $5, $6, and $7 per head, as above. The swine at $5 to $10 dollars per head, according to age. The working oxen at $100. After an animal is bid off, it will then be considered at the risk of the owner; but it can remain on the farm free of expense one week.

TERMS.—For all sums amounting to $100 and upwards, approved endorsed notes will be taken at six months, or a discount of five per cent. for cash.

Catalogues with full description and pedigree of each animal can be had on application to A. B. ALLEN,
August 1, 1850. 189 Water street, New York.

Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Seperator.

THE subscribers, Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for Machines, and to establish agencies, to any extent that may be desired.

These Machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse Machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse or single Machines, thresh rather more than half as fast as the double ones.

These Horse Powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, of a proper height to allow the feeder to stand erect and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain or short oats, and re-setting it at pleasure, for long rye or wheat or oats in good order or for timothy grass or clover; and all this is accomplished without stopping the Machine, so simple is the process. By means of the Separator, the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon; but where frequent moving is desired, the two horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business, and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M. & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers; and also Circular Saws, and Benches, for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M. & Co., or their agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two horse machine, complete, being less than 2,000 lbs., and of the one horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canada, where they are needed to facilitate the sale of these machines. Good agents are wanted in the South ern and Western States and the Canadas, to whom liberal commissions will be allowed.

Our agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester; T. C. Peters & Brother, Buffalo; Peter R. Sleight, Esq., Poughkeepsie; F. F. Parker & Brother, Detroit; John Melick, Trenton, N. J.; John Bowsfield, Kirkland, Ohio; F. R. Elliot, Cleveland, Ohio; James Williams, Bakers Town, Allegany Co., Pa.; Spears, Case & Co., Delphi, Indiana; W. B. Arnold, Franklin Centre, Iowa; Ephraim Abbott, St. Louis, Mo. W. D. Bacon, Waukesha, is general agent for Wisconsin.

These machines may also be had of John Mayher & Co., New York city. WHEELER, MELICK & CO.,
Hamilton st., corner of Liberty and Union sts., Albany, N. Y.; and Chicago, Illinois.
May 1, 1850.

Allen's Improved Portable Railroad Horse Power, Thresher, and Separator.

THE advantages of the above horse power, are—1. They occupy but little more space than a horse. 2. They can be moved by the weight of the horse only, by placing the machine at an angle of 10 or 15 degrees. 3 They are easily transported, simply constructed, not liable to get out of order, and move with little friction.

The Overshot Threshers consist of a small-spiked cylinder, with a concave top, and possesses these advantages. 1 They have a level table for feeding, thus enabling the tenders to stand erect, and control the motions of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, stones, blocks, &c., drop at the end of the table, and are not carried between the spikes. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is long, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by an increased number in the concave top, which is stationary. 7. The seperator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men with a single power, can thresh 100 to 150 bushels of grain per day; and four men with a double power, twice that quantity. All the above are compact and can be carried where wanted, complete, or they may be readily taken apart and packed for distant transportation by wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Seperator and fixtures,	$7
" Bands for driving, etc.,	$5
" Wood-sawing machine, complete, and in running order,	$35.
Price of Double Power,	$100
" with Thresher, Seperator, &c.,	$145 to $150

All the above are sold singly or together, as desired, and are warranted to work well and give satisfaction.

Also, Taplins 20 feet circular, and the Cast Iron Sweep Powers. Enquire at the New York Agricultural Warehouse and Seed Store of A. B. ALLEN & CO., 189 and 191 Water st., New York.

New Laws relating to Pensions and Bounty Lands.

OFFICERS and soldiers, their widows and children, of the Revolutionary war, war of 1812, and Mexican war, entitled to pensions, bounty lands, arrears of military pay, and extra pay, in certain cases.

The subscriber having devoted much of his time and attention for seven years past, to the investigation of claims before Congress and the several Departments at Washington, and having in his possession, and access to, a vast amount of old pay rolls, books, and documents, preserved from the service, affording proofs no where else to be found, he is prepared to aid vigorously and promptly, all persons who have claims against the General Government. Having a list of the names of all persons pensioned by the United States previous to 1824, he can give much information relating to such persons, which in many cases will enable their widows and children to obtain an increase of pension. Particular attention given to widows' claims which have been rejected.

He has also a list of the names of several thousand persons entitled to Bounty Lands, an object for many.

Children are entitled to both Pension and Land, where their father or mother was entitled, but omitted to establish their claims.

The subscriber has all the new laws, forms, and regulations, from the Pension Office, and is enabled to prosecute claims without delay.

☞ No charge for information or services, unless the claimant is benefitted.

All letters of application and inquiry will be promptly attended to, if addressed, post paid, to WILLIS G. WADE,
August, 1850. Rose, Wayne co., N.Y.

Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850 [6-tf]

BOOKS ON AGRICULTURE, &c., &c.,

For Sale at the Office of the Farmer.

The Publisher of the FARMER keeps constantly on hand a large assortment of the most popular and valuable works pertaining to Agriculture, Horticulture, and Rural and Domestic Economy, which will be sold at the lowest cash prices. The names and prices of a portion of the books are annexed:—

American Agriculture, by Allen $1.
American Farm Book. $1.
American Poultry Yard, by Browne. $1.
American Shepherd, by Morrell. $1.
American Veterinarian, by Cole. 50 cents
Buel's Farmer's Companion. 75 cents
Buist's Kitchen Gardener. 75 cents.
Chaptal's Agricultural Chemistry. 50 cents.
Coleman's Continental Agriculture. $1.
Complete Farmer. $1.
Cole's American Fruit Book. 50 cents.
Domestic Animals, by R. L. Allen. Cloth, 75 cts.; paper, 50 cts.
Downing's Fruits and Fruit Trees of America. $1 50.
Downing's Landscape Gardening. $3 50
Essay on Manures. 25 cents.
Farmer's and Emigrant's Hand-Book. $1.
Farmer's Manual.
Gardener's Farmer's Dictionary. $1 50.
Home Doctor. 25 cents.
Horse Doctor. 25 cents.
Horse's Foot—and how to keep it sound. 25 cents.
Johnson's Agricultural Chemistry. $1 25.
Johnson's Dictionary of Gardening.
Kirby & Spencer's Entomology. $2.
Knowlson's Complete Farrier, or Horse Doctor. 25 cents.
Ladies' Companion to the Flower Garden. $1 25.
Liebgig's Agricultural Chemistry, (new edition.) $1—paper, 75 cts.
Liebgig's Agricultural and Animal Chem stry, (pamphlet editions.) 25 cents each
Loudon's Ladies' Flower Garden. $1 25.
Mason's Farrier and Stud Book. $1.
Miner's Bee-Keeper's Manual. $1.
Norton's Elements of Scientific Agriculture. 50 cents.
Poultry Book, by Bennett. 75 cents.
Rural Economy, by Boussingault. $1 25.
Scientific Agriculture, by Rodgers 75 cents.
Stable Economy, by Stewart. $1.
The Bird Fancier. 50 cents.
Treatise on Milch Cows. 38 cts.
Trees of America $4.
Youatt on the Pig. 75 cents.

ALSO,

2 setts Chamber's Miscellany. $8 per sett

, These books can be safely forwarded by mail, to any part of the country.

☞ Orders from a distance will receive prompt attention, and the books forwarded by mail or Express as desired

Daguerreotypes that are Daguerreotypes.

BROWN & HOWARD'S Emporium Daguerrean Gallery, No. 9, second floor Gould Buildings Having opened a splendid Gallery in the Gould Block, would respectfully invite the public and all those wishing good likenesses, to give us a call, and we will assure them they will not waste time and money, as is often the case. Our Gallery is furnished in a style of unusual splendor, equal to any in the State. The walls are adorned with some of the finest works of Art, both of pencil and engraver.

Strangers visiting the city, and having a few leisure hours, will be amply rewarded by a visit to our Gallery, which will be kept open during all business hours. Please call and examine for yourselves.

WM. BROWN,
JOHN HOWARD.

The undersigned takes this method of informing the citizens of Rochester and vicinity, that by the solicitations of many citizens, he has been induced to return to the city for the purpose of making it a place of permanent location. Having been absent from the city one year, and in constant practice, experimenting in the above named Art, has now returned better qualified than ever, not only to sustain, but excel my former reputation as an Artist, being well known in this city and vicinity, as formerly principal operator in Mercer & Co.'s Gallery, corner of Main and St. Paul streets, would now respectfully invite my old friends, and the public generally, to call at No. 9, Gould Buildings, where you can see likenesses that will speak for themselves.

[7-tf] W. BROWN.

Pure Merino Bucks for Sale.

I HAVE some twenty-five *yearling Bucks* for sale, on good terms. They are pure bred Merinos—among the best in the country. The last fleece of my stock buck was 10 lbs. 11 oz.

Also, two bucks, three years old. REED BURRITT.
August 1, 1850. [7-1t*] Burdett, Tomp. co., N. Y.

Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y. warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.

Bickford & Huffman's Grain Drill.

THIS Drill is an improvement, in several important particulars, on Bickford and Huffman's Drill manufactured and widely distributed last year, and which operated to the entire satisfaction of every purchaser. The chief points of superiority are as follows:

1. The revolutions of the Distributing Cylinder are increased or diminished at pleasure, with perfect precision, by means of cog-wheels of different sizes. By this arrangement, the quantity of and distributed to the acre is regulated with perfect accuracy.

2. The Teeth may be elevated or dropped separately, or simultaneously, with a single motion of the hand, according to the will of the operator.

3. The Drilling Tubes, being made of iron instead of leather, are immeasurably more durable, and the seed always passes them with a clear and unimpeded current.

4. This Machine possesses great advantages in the superior regularity of distribution along the furrow—in the simplicity of its construction—in the durable and substantial style of its manufacture—and in its far greater cheapness, when all its points of usefulness are taken into consideration.

This Drill will sow all kinds of grain, if properly cleaned.

PRICES—Seven tube Drills, $65; Nine tube Drills, $75.

Orders, addressed "Bickford & Huffman, Macedon, Wayne co., N. Y.," will be faithfully and promptly attended to.

The Princess Tribe of Short Horns.

IN January, 1849, Mr. Sheafe, of High Cliff, Dutchess county, N. Y., imported the young bull Exeter, bred by Mr. Stevenson, of Durham, England. Mr. Stephenson is the most celebrated breeder now living, and his herd is of the Princess tribe, one of the best and most ancient stock of Short Horns. The breeding of the Princess tribe can be traced back as pure Short Horns upward of *two hundred years*, a matter of no small consideration to those who wish to breed true stock of a reliable quality.

Exeter was selected for Mr. Sheafe, by that excellent judge of Stock, Mr. A. Stevens, of New York. He was considered one of the very best bulls in England Quite a high price was paid for him. It is believed that his superior has never before been imported into this country. He is a beautiful yellow-red—which is a bright red, with a fine golden or saffron under tinge, arising from a rich yellow skin, and is the only bull of this peculiarly fine red ever imported. A few calves of his get will be for sale this season. Their dams are Herd Book Short Horns, very fine in their points, and great milkers. Those who desire to improve their present stock by taking a superior fresh cross, will please to apply to

June, 1850. [6-3t] A. B. ALLEN & CO., New York.

Burrall's Agricultural Foundry and Machine Shop.

GENEVA, ONTARIO COUNTY, N. Y.

THE subscriber manufactures various Agricultural Implements of the most approved kinds, which he sells at wholesale and retail. His work is all warranted to be well built and to work well.

The increasing demand for articles of his manufacture, recently rendered additions to his shops necessary, which having been completed, he has every facility for producing perfect work, and at reasonable prices.

Among the implements now sold by him, are Burrall's Clover Mills, 4 sizes. [1st premium last State Fair;] Burrall's Shell Wheel Plows, 12 sizes, highly improved the present season; Plain, Iron beam, Shovel, Subsoil, and Corn Plows; Burrall's Corn and Grain Cultivators; Improved English Drill, for seeding and manuring at a single operation; Straw Cutters, for hand and horse power; Threshing Machines and Horse-Powers, Clod Crushers, Field Rollers, Corn Shellers and Separators, &c., &c.

Orders from abroad attended to without delay. A liberal discount to the trade. Rapalje & Briggs, Rochester, agents.

Geneva, N. Y, June, 1850. E. J. BURRALL.

Pure White Lead.

THE Rochester White Lead Manufacturing Company beg to offer their brands of PURE LEAD to the attention of agriculturists and horticulturists, for painting permanent structures of every description.

This article has been thoroughly tested by the best judges in this city, and pronounced a genuine article. Persons desiring to test the purity of the lead, may have it analyzed by a chemist; and if in any case it should be found impure, we will pay the price of analyzing it, and refund the money for the lead.

Be particular about the brand: "Moulson's, 36 Front street, Rochester," is marked on every keg. Purchasers of lead have occasionally been deceived in buying lead branded as Rochester lead. Mark, *we are the only manufacturers of lead here.* There is, however, a large quantity of lead "fixed over" here. Nevertheless, we wish our lead not to be confounded with that or any other, and therefore desire all consumers to give us a trial.

SAMUEL MOULSON, No. 36 Front st.
Rochester, August 1, 1850. [8-tf]

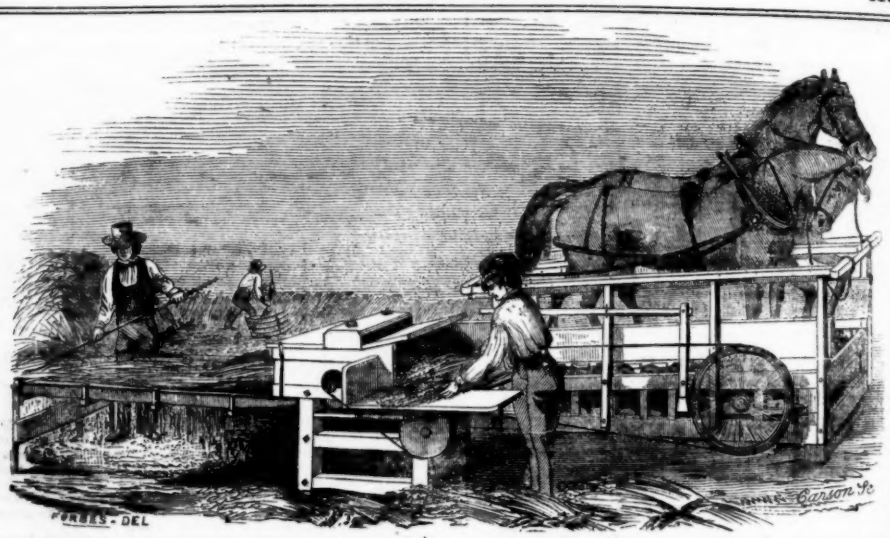
TO FARMERS.

CASH PAID FOR RED ROOT SEED AT MY OIL MILL.

M. F. REYNOLDS, manufacturer of Linseed Oil, White Lead in Oil, Sash, Doors, and Blinds, Stained and enamelled Glass;

AND DEALER IN

Paints, Oils, Varnish, Glue, Brushes, &c.; French, English, and American Plate, Crown, and Sheet Glass, French White Looking Glass Plates, &c., 17 Buffalo street, Rochester, N. Y.



EMERY & CO.'S LATEST IMPROVED RAILROAD HORSE-POWER, OVERSHOT THRESHING MACHINES AND SEPARATORS.

THE above cut represents this most useful Machine, ☞ FOR WHICH PATENT HAS BEEN SECURED. ☜ with the *latest improvements*, embracing some of great importance, which have suggested themselves from time to time, as the various kinds made and sold by us have become used, worn, or failed.

The most important of these consists principally in the new mode of applying the power and motion from the endless platform to the shaft of the main driving pulley, and obtaining the necessary motion for the Overshot Threshing Machine without crossing of bands or intermediate gearing, and at the same time dispensing with the small pinions and cogs upon the links of the endless platform, thereby combining *greater strength* and *durability* with *lighter friction*, without the liability of breakage of links, or the wearing of links and pinions, (no small item in the expense of repairs in most other kinds of powers in use.) The farmer or mechanic is enabled to perform a greater amount of work, and to operate them with less expense of power or elevation, as best suits his wishes.

Having been long engaged in the manufacture, introduction, sale, and use of various kinds of Horse-Powers for different purposes, and at all times adopted such improvements as from observation and experiments have seemed desirable and necessary, we feel confident that in this Power, as now manufactured, all that can be desired is found to a greater extent than any other heretofore sold by us, or with which we are acquainted.

They were introduced to some considerable extent last season, and wherever used side by side with the most approved Powers of other kinds, have given unqualified satisfaction and been preferred.

The overshot Thresher and vibrating Separator with improvements, have been sold with like success as the Powers. They admit of a level feeding table, thus avoiding accidents, which often occur with the inclined feeding board, by preventing hard substances, sticks, and stones, from getting into the machine and breaking spikes, endangering those engaged with them. The cylinder shaft (of cast steel) runs in bronze boxes, which are so made of two parts as easily to be adjusted when worn loose, and can with little trouble always be kept tight. The speed of the power is such that a larger pulley is used on the Thresher than on most others—driving stronger with less liability of slipping of bands, which are made of vulcanized India rubber. The Separator makes a complete separation of grain from straw, leaving it in best condition for Fan-mill, saving the labor of several men, and doing the work better.

Fan-mills of various sizes, for hand, or fitted to be driven by the Power at same time of threshing. Also, Saw-mills in complete order.

The double Horse-Power is capable, with three or four men, of threshing from 125 to 200 bushels of wheat or rye, and the single one from 75 to 100 bushels, or double that quantity of oats, per day. They are warranted to perform as above, or may be returned to us, or our agents of whom purchased, within three months, and money refunded. They may be had in Rochester, Buffalo, or any of the principal ports on the lower and upper lakes, by adding transportation. Good agents will attend to the sale of them in those places. The prices will be—

For Single Power,	$85
" Thresher and Separator,	35
" Bands, Wrench, Oil Can, extra pieces,	5—125
Sett Double Machines, complete,	150
Fan-mills, from	22 to 28
Saw-mill complete,	35

We will also furnish "Wheeler's" Machines, latest improved—

Single sett complete,	$120
Double Sett do.	146

Terms cash, or approved notes, or acceptances with interest. To good agents in new locations, liberal terms will be given. For further particulars, see new issue of Catalogue, or apply personally, or by letter, at the Albany Agricultural Works Warehouse & Seed Store, 369 and 371 Broadway, Albany, N. Y.

EMERY & CO.

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THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

VOLUME XI, FOR 1850.

Fifty Cents a Year, in Advance.

FIVE Copies for $2; Eight Copies for $3, and any larger number at the same rate.

DANIEL LEE.

December, 1849. *Rochester, New York*

STEREOTYPED BY JEWETT, THOMAS AND CO., BUFFALO, N. Y.